



ISOCOM
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COMPONENTS

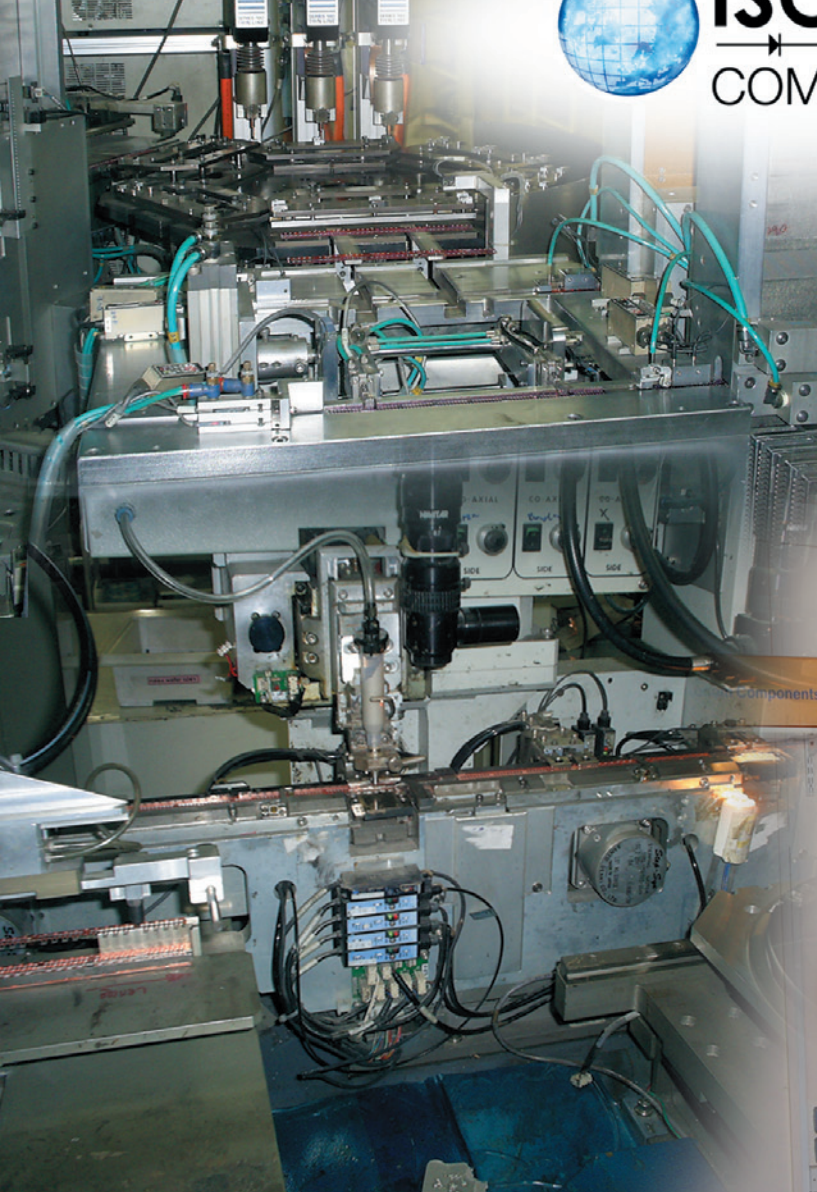


Manufacturer of Optocouplers / Optoisolators

www.isocom.com



ISOCOM
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COMPONENTS





Welcome to the **Isocom Components** Shortform Catalogue

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Isocom Components has been a leading supplier of infrared optoelectronic devices for over 25 years with product families including all popular commercial optocoupler industry standard types including many no longer supplied by other manufacturers. We also offer special parametric selections to meet customer's specific circuit design requirements.

Isocom Components undertakes final assembly, marking, lead forming, testing, and quality control at its production facility in the UK. Original components are sourced from world class approved suppliers in the Far East and elsewhere to ensure cost competitiveness and the very highest quality standards.

We offer the shortest manufacturing lead times in the world for many parts and are proud of our fast turnaround capability whilst maintaining excellent product quality.

Why settle for lengthy lead times when we can deliver your components at a time when you need them?

For all the latest news and new product offerings please visit our website at:

www.isocom.com

Optocouplers

Why use an Optocoupler?

Optocouplers provide a low cost, space efficient, easy to use solution to high voltage isolation requirements. With careful PCB design the input can be electronically isolated from the output stage for up to 7,500 volts peak differential.

Which optocoupler to choose?

For those new to optocouplers the array of varieties may seem bewildering but by considering the specific application the right optocoupler can usually be selected easily.

Transistor

Transistor optocouplers can be used in most circumstances. If the base lead of the output transistor is not required in the circuit then the packages with no base lead connection provide additional protection against noise. The special dual and quad packages provide excellent PCB space savings where several optocouplers are required on the same circuit board.

AC Input

AC input devices, as the name implies, switch on the output transistor when an AC voltage (or a DC voltage of either polarity) is applied to the input. A typical application of this device is to detect the presence, or lack of, an AC voltage.

Darlington

Where high gain is required a darlington pair output device can provide up to 100% Current Transfer Ratio (CTR)

Schmitt Trigger

Where hysteresis control is needed together with a degree of speed, the Schmitt trigger devices provide an ideal solution.

Triac

Triac optocouplers provide control of AC voltages. For very high current applications, Isocom Components' Triac optocouplers can be used to control an external Power Triac.

IGBT Octocoupler

Isocom's newly developed ICPL3120 incorporates an infrared emitting diode optically coupled to an integrated circuit with a Power Output stage. It is suited for driving power IGBT's and MOSFETS in motor control applications

Mini Flat Packages

A range of space saving optocouplers with various outputs including Zero Crossing Triacs and Random Phase Triacs

Half Pitch Packages

A range of super small devices with both AC & DC inputs coupled with a phototransistor output

High Speed

A range of industry standard High Speed optocouplers with data rates in excess of 10Mbits/sec



Index - Popular Part No. Many More Available

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4 Pin DIL & SMD Optocouplers

Transistor Output

| Part Number | Features | Current Transfer Ratio $I_F = 5\text{mA}$ $V_{CE} = 5\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_{BR} $I_R = 10\mu\text{A}$ Min (V) | BV_{CEO} $I_C = 0.5\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(SAT)}$ $I_F = 8\text{mA}$ $I_C = 2.4\text{mA}$ Max (V) | | | | | | | |
|-------------|--|---|-------------------------------|--|--|---|--|--|---|----|--|-------------------------------|--|-------------------------------|---|
| ISP321-1 | Single channel Optocoupler with a Phototransistor Output | 50-600 | 7.5(pk) 5.3(rms) | 50 | 6 | 80 | 100 | 0.4 | | | | | | | |
| ISP521-1 | | 50-600 | | | | 55 | | | | | | | | | |
| ISP621-1 | | 50-600 | | | | 35 | | | 0.2($I_F = 20\text{mA}$) ($I_C = 1\text{mA}$) | | | | | | |
| ISP817 | | 50-600 | | | | 55 | | | 0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$) | | | | | | |
| ISP624-1 | | 100-1200 ¹ | | | | 80 | | | 0.3($I_F = 10\text{mA}$) ($I_C = 2\text{mA}$) | | | | | | |
| PS2501-1 | | 80-600 | | | | 50 ($V_{CE} = 10\text{V}$) | | | 0.4($I_F = 10\text{mA}$) ($I_C = 2.5\text{mA}$) | | | | | | |
| SFH615A-1 | | 40-80/13 ($I_F = 10\text{mA}/1\text{mA}$) | | | | | | | | | | | | | |
| SFH615A-2 | | 63-125/22 ($I_F = 10\text{mA}/1\text{mA}$) | | | | | | | | | | | | | |
| SFH615A-3 | | 100-200/34 ($I_F = 10\text{mA}/1\text{mA}$) | | | | | | | | | | | | | |
| SFH615A-4 | | 160-320/56 ($I_F = 10\text{mA}/1\text{mA}$) | | | | | | | | | | | | | |
| SFH617A-1 | | 40-80/13 ($I_F = 10\text{mA}/1\text{mA}$) | | | | | | | | | | | | | |
| SFH617A-2 | | 63-125/22 ($I_F = 10\text{mA}/1\text{mA}$) | | | | | | | | | | | | | |
| SFH617A-3 | | 100-200/34 ($I_F = 10\text{mA}/1\text{mA}$) | | | | | | | | | | | | | |
| SFH617A-4 | | 160-320/56 ($I_F = 10\text{mA}/1\text{mA}$) | | | | | | | | | | | | | |
| SFH618A-2 | | 63-125 ¹ | | | | | 50 ($V_{CE} = 10\text{V}$) | 0.4($I_F = 1\text{mA}$) ($I_C = 0.32\text{mA}$) | | | | | | | |
| SFH618A-3 | | 100-200 ¹ | | | | | | | | 55 | 0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$) | | | | |
| SFH618A-4 | | 160-320 ¹ | | | | | | | | | | 100 ($V_{CE} = 10\text{V}$) | 0.4($I_F = 1\text{mA}$) ($I_C = 0.8\text{mA}$) | | |
| SFH618A-5 | | 250-500 ¹ | | | | | | | | | | | | 100 ($V_{CE} = 10\text{V}$) | 0.4($I_F = 1\text{mA}$) ($I_C = 1.25\text{mA}$) |
| TIL191 | | 20 | | | | | | | | | | | | | |
| TIL191A | | 50 | | | | | | | | | | | | | |
| TIL191B | | 100 | | | | | | | | | | | | | |
| TLP321 | | 50-600 | | | | | 80 | 0.4 | | | | | | | |
| TLP521 | | 50-600 | | | | | 55 | | | | | | | | |
| TLP621 | | 50-600 | | | | | | | | | | | | | |
| TLP624 | | 100-1200 ¹ | | | | 55 | 0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$) | | | | | | | | |

Note 1 Test Condition: $I_F = 1\text{mA}$ $V_{CE} = 0.5\text{V}$

AC Input

| Part Number | Features | Current Transfer Ratio $I_F = \pm 10\text{mA}$ $V_{CE} = 5\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = \pm 20\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(SAT)}$ Max (V) | | |
|-------------|---|--|-------------------------------|--|---|---|--|---|-------------------------------|---|
| ISP620-1 | Single channel Optocoupler with two infrared LED's wired in inverse parallel allowing operation with AC input voltage | 40-125 ¹ | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 55 ($I_C = 0.5\text{mA}$) | 100 ($V_{CE} = 24\text{V}$) | 0.4($I_F = \pm 8\text{mA}$) ($I_C = 2.4\text{mA}$) | | |
| ISP626-1 | | 100 ² 50 ³ | | | | | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$) | | |
| ISP814 | | 20-300 ⁴ | | | | | | 0.2($I_F = \pm 20\text{mA}$) ($I_C = 1\text{mA}$) | | |
| ISP814-1 | | 80 ⁵ | | | | 100 | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.8\text{mA}$) | | | |
| ISP814-2 | | 140/80 ⁵ | | | | | 0.4($I_F = \pm 0.5\text{mA}$) ($I_C = 0.2\text{mA}$) | | | |
| ISP814-3 | | 20/40/80 ⁵ | | | | | 0.4($I_F = \pm 0.25\text{mA}$) ($I_C = 0.05\text{mA}$) | | | |
| PS2505-1 | | 80-600 | | | | 80 | 100 ($V_{CE} = 40\text{V}$) | 0.3($I_F = \pm 10\text{mA}$) ($I_C = 2\text{mA}$) | | |
| SFH620-1 | | 40-125 | | | | 70 | 50 | 0.4($I_F = \pm 10\text{mA}$) ($I_C = 2.5\text{mA}$) | | |
| SFH620-2 | | 63-200 | | | | | 100 | | | |
| SFH620-3 | | 100-320 | | | | | | | 50 | |
| SFH620A-1 | | 40-125 | | | | | 100 | | | |
| SFH620A-2 | | 63-200 | | | | | | | | |
| SFH620A-3 | | 100-320 | | | | | | | | |
| SFH628-2 | | 63-200 ² | | | | 55 | 200 ($V_{CE} = 10\text{V}$) | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$) | | |
| SFH628-3 | | 100-320 ² | | | | | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.8\text{mA}$) | | |
| SFH628-4 | | 160-500 ² | | | | | | 55 | 200 ($V_{CE} = 10\text{V}$) | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 1.25\text{mA}$) |

4 Pin DIL & SMD Optocouplers

| AC Input | | | | | | | | | |
|-------------|---|--|-------------------------------|--|---|--|--|---|--|
| Part Number | Features | Current Transfer Ratio $I_F = \pm 10\text{mA}$ $V_{CE} = 5\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = \pm 20\text{mA}$ Max (V) | V_{CE0} $I_C = 1\text{mA}$ Min (V) | $I_{CE0(Dark)}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(SAT)}$ Max (V) | |
| SFH628A-2 | Single channel Optocoupler with two infrared LED's wired in inverse parallel allowing operation with AC input voltage | 63-200 ² | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 55 | 200 ($V_{CE}=10\text{V}$) | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$) | |
| SFH628A-3 | | 100-320 ² | | | | | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.8\text{mA}$) | |
| SFH628A-4 | | 160-500 ² | | | | | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 1.25\text{mA}$) | |
| TIL194 | | 20 | | | | | | 0.4($I_F = \pm 5\text{mA}$) ($I_C = 1\text{mA}$) | |
| TIL194A | | 50 | | | | | | | |
| TIL194B | | 100 | | | | | | | |
| TLP620-1 | | 40-125 ¹ | | | | | | | 0.4($I_F = \pm 8\text{mA}$) ($I_C = 2.4\text{mA}$) |
| TLP626-1 | | 100 ² 50 ³ | | | | | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$) | |

Note 1 Test condition: $I_F = \pm 5\text{mA}$

Note 2 Test condition: $I_F = \pm 1\text{mA}$, $V_{CE} = 0.5\text{V}$

Note 3 Test condition: $I_F = \pm 0.5\text{mA}$, $V_{CE} = 1.5\text{V}$

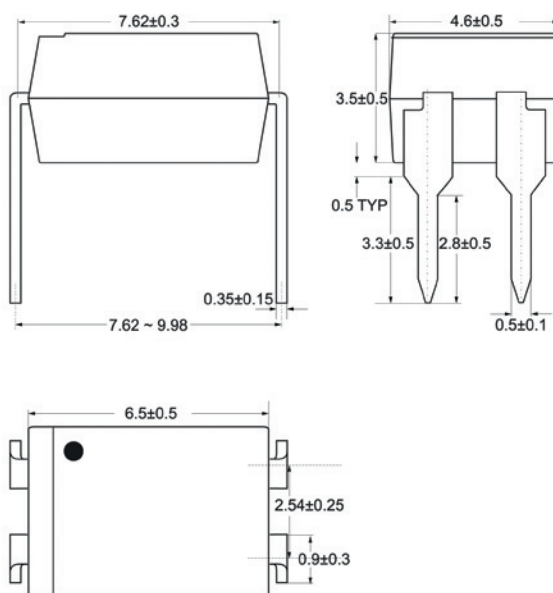
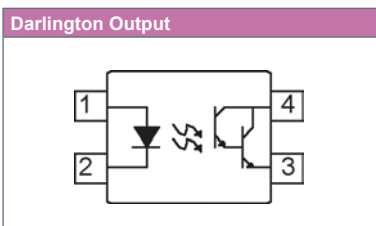
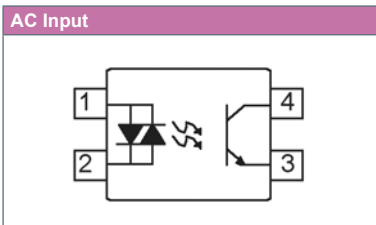
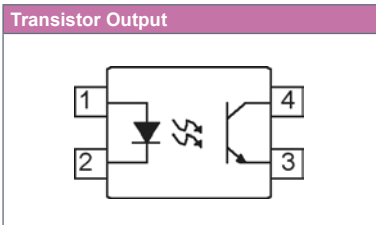
Note 4 Test condition: $I_F = \pm 1\text{mA}$

Note 5 Test condition: $I_F = \pm 0.25 / \pm 0.5 / \pm 1\text{mA}$, $V_{CE} = 5\text{V}$

| Darlington Output | | | | | | | | | |
|-------------------|---|---|-------------------------------|--|---|--|--|--|---|
| Part Number | Features | Current Transfer Ratio $I_F = 1\text{mA}$ $V_{CE} = 1\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 20\text{mA}$ Max (V) | V_{BR} $I_R = 10\mu\text{A}$ Min (V) | V_{CE0} $I_C = 1\text{mA}$ Min (V) | $I_{CE0(Dark)}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(SAT)}$ Max (V) |
| ISP627-1 | Single channel Optocoupler with a Photo-Darlington Transistor | 1000 | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 6 | 100 | 300 ($I_C = 1\text{mA}$) | 1.2($I_F = 10\text{mA}$) ($I_C = 100\text{mA}$) |
| ISP815 | | 600-7500 ($V_{CE} = 2\text{V}$) | | | | | | 35 ($I_C = 0.1\text{mA}$) | 1($I_F = 20\text{mA}$) ($I_C = 5\text{mA}$) |
| ISP815-1 | | /800 ¹ | | | | | | 70 | 1($I_F = 1\text{mA}$) ($I_C = 8\text{mA}$) |
| ISP815-2 | | /400/800 ¹ | | | | | | | 1($I_F = 0.5\text{mA}$) ($I_C = 2\text{mA}$) |
| ISP815-3 | | 200/400/800 ¹ | | | | | | 80 | 1($I_F = 0.25\text{mA}$) ($I_C = 0.5\text{mA}$) |
| PS2502-1 | | 200-2000 | | | | | | | 1($I_F = 1\text{mA}$) ($I_C = 2\text{mA}$) |
| TIL197 | | 500-7500 ($I_F = 2\text{mA}$) | | | | | | 35 | 1($I_F = 2\text{mA}$) ($I_C = 10\text{mA}$) |
| TIL197A | | 1000-7500 ($I_F = 2\text{mA}$) | | | | | | | |
| TIL197B | | 1500-7500 ($I_F = 2\text{mA}$) | | | | | | | |
| TLP627-1 | | 1000 | | | | | | 300 ($I_C = 1\text{mA}$) | 200 ($V_{CE} = 200\text{V}$) |

Note 1 Test condition: $I_F = \pm 0.25 / \pm 0.5 / \pm 1\text{mA}$, $V_{CE} = 1\text{V}$

Note 2 Test condition: Device has a reverse biased diode connected between pin 3 and 4 giving high breakdown stability



6 Pin DIL & SMD Optocouplers

Transistor Output - Base Connected

| Part Number | Features | Current Transfer Ratio $I_F = 10\text{mA}$ $V_{CE} = 10\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 10\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(SAT)}$ Max (V) | | | |
|-------------|--|---|-----------------------------------|---|---|---|--|---|-----|-----------------------------|---|
| 4N25 | Single channel Optocoupler with a Phototransistor Output | 20 | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 30 | 50 | 0.5($I_F=50\text{mA}$) ($I_C=2\text{mA}$) | | | |
| 4N26 | | | | | | | | | | | |
| 4N27 | | | | | | | | | | | |
| 4N28 | | | | | | | | | | | |
| 4N35 | | 10 | | | | | | | | | |
| 4N36 | | 100 | | | | | | | | | |
| 4N37 | | | | | | | | | | | |
| 4N38 | | 20 ($V_{CE}=1\text{V}$) | | | | | | | | | |
| 4N38A | | | | | | | | | | | |
| CNX72A | | 40-160 ($V_{CE}=0.4\text{V}$) | | | | | | | 30 | | |
| CNX83AG | | 40 ($V_{CE}=0.4\text{V}$) | | | | | | | 50 | | |
| CNY17-1 | | 40-80 ($V_{CE}=5\text{V}$) | | | | | | | 70 | 50 | |
| CNY17-2 | | 63-125 ($V_{CE}=5\text{V}$) | | | | | | | | | |
| CNY17-3 | | 100-200 ($V_{CE}=5\text{V}$) | | | | | | | | | |
| CNY17-4 | | 160-320 ($V_{CE}=5\text{V}$) | | | | | | | | | |
| CNY17-5 | | 200-400 ($V_{CE}=5\text{V}$) | | | | | | | | | |
| CNY75A | | 100-200 ($V_{CE}=5\text{V}$) | | | | | | | 90 | 150 ($V_{CE}=20\text{V}$) | 0.3($I_F=10\text{mA}$) ($I_C=1\text{mA}$) |
| CNY75B | | 160-320 ($V_{CE}=5\text{V}$) | | | | | | | | | |
| CNY75C | | 200-400 ($V_{CE}=5\text{V}$) | | | | | | | | | |
| CQY80 | | 50 ($V_{CE}=5\text{V}$) | | | | | | | 32 | 200 ($V_{CE}=20\text{V}$) | |
| H11A1 | | 50 | | | | | | | 30 | 50 | 0.4($I_F=10\text{mA}$) ($I_C=0.5\text{mA}$) |
| H11A2 | | 20 | | | | | | | | | |
| H11A3 | | 20 | | | | | | | | | |
| H11A4 | | 10 | | | | | | | | | |
| H11A5 | | 30 | | | | | | | | | |
| H11AV1 | | 100-300 | | | | | | | | | |
| H11AV2 | | 50 | | | | | | | | | |
| H11AV3 | | 20 | | | | | | | | | |
| IL1 | | 20-300 | | | | | | | | | |
| IL2 | | 100-500 | | | | | | | | | |
| IL5 | | 50-400 | | | | | | | 70 | 50 | 0.4($I_F=16\text{mA}$) ($I_C=2\text{mA}$) |
| IL74 | | 12.5 ($I_F=16\text{mA}$) | | | | | | | | | |
| IS1 | | 20 | | | | | | | | | |
| IS2 | | 100 | | | | | | | | | |
| IS201 | | 75/10 ($I_F=10\text{mA}/1\text{mA}$) | | | | | | | 70 | 50 | 0.4($I_F=10\text{mA}$) ($I_C=2\text{mA}$) |
| IS202 | | 125-250/30 ($I_F=10\text{mA}/1\text{mA}$) | | | | | | | | | |
| IS203 | | 225-450/30 ($I_F=10\text{mA}/1\text{mA}$) | | | | | | | | | |
| IS204 | | 200-400 ($I_F=10\text{mA}/1\text{mA}$) | | | | | | | | | |
| IS204-1 | | /50 ¹ | | | | | | | 100 | 50 | 0.4($I_F=1\text{mA}$) ($I_C=0.5\text{mA}$) |
| IS204-2 | | 50/2 | | | | | | | | | |
| IS204-3 | 70 ² /100 ¹ | | | | | | | | | | |
| IS5 | 50-400 | 70 | 50 | 0.4($I_F=16\text{mA}$) ($I_C=2\text{mA}$) | | | | | | | |
| IS74 | 12.5 ($I_F=16\text{mA}$) | | | | | | | | | | |
| MCT2 | 20 | | | | | | | | | | |
| MCT2E | 50 | | | | | | | | | | |
| MCT210 | 50 ($I_F=3.2-32\text{mA}$) ($V_{CE}=0.4\text{V}$) | 30 | 50 | 0.4($I_F=16\text{mA}$) ($I_C=2\text{mA}$) | | | | | | | |
| MCT2200 | 20 ($V_{CE}=5\text{V}$) | | | | | | | | | | |
| MCT2201 | 100 ($V_{CE}=5\text{V}$) | | | | | | | | | | |

Note 1 Test Condition: $I_F=1\text{mA}$, $V_{CE}=0.4\text{V}$

Note 2 Test Condition: $I_F=0.5\text{mA}$, $V_{CE}=0.4\text{V}$

6 Pin DIL & SMD Optocouplers

| Transistor Output - Base Connected | | | | | | | | | |
|------------------------------------|--|---|-------------------------------|--|---|---|---|---|---|
| Part Number | Features | Current Transfer Ratio $I_F = 10\text{mA}$ $V_{CE} = 10\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 10\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(\text{Dark})}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(\text{SAT})}$ Max (V) | |
| MCT2202 | Single channel Optocoupler with a Phototransistor Output | 63-125 ($V_{CE}=5\text{V}$) | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 30 | 50 | 0.4($I_F=10\text{mA}$) ($I_C=2.5\text{mA}$) | |
| MCT270 | | 50 | | | | | | 0.4($I_F=16\text{mA}$) ($I_C=2\text{mA}$) | |
| MCT271 | | 45-90 | | | | | | | |
| MCT272 | | 75-150 | | | | | | | |
| SFH600-0 | | 40-80 ($V_{CE}=5\text{V}$) | | | | 70 | | 0.4($I_F=10\text{mA}$) ($I_C=2.5\text{mA}$) | |
| SFH600-1 | | 63-125 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH600-2 | | 100-200 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH600-3 | | 160-320 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH600-4 | | 200-400 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH601-1 | | 40-80 ($V_{CE}=5\text{V}$) | | | | 100 | | | |
| SFH601-2 | | 63-125 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH601-3 | | 100-200 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH601-4 | | 160-320 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH609-1 | | 40-80 ($V_{CE}=5\text{V}$) | | | | 90 | | | |
| SFH609-2 | | 63-125 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH609-3 | | 100-200 ($V_{CE}=5\text{V}$) | | | | | | | |
| SFH609-4 | | 160-320 ($V_{CE}=5\text{V}$) | | | | | | | |
| TIL111 | | 20 ($I_F=16\text{mA}$) ($V_{CE}=0.4\text{V}$) | | | | 30 | | | 0.4($I_F=16\text{mA}$) ($I_C=2\text{mA}$) |
| TIL114 | | | | | | | | | 0.4($I_F=15\text{mA}$) ($I_C=2.2\text{mA}$) |
| TIL116 | | | | | | | | | 20 |
| TIL117 | 50 | | | | | | | | |

| Transistor Output - Non Base | | | | | | | | |
|------------------------------|---|---|-------------------------------|--|---|---|---|---|
| Part Number | Features | Current Transfer Ratio $I_F = 10\text{mA}$ $V_{CE} = 10\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 10\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(\text{Dark})}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(\text{SAT})}$ Max (V) |
| CNX62A | Single channel Optocoupler with a Phototransistor Output with base lead not connected for improved noise immunity | 40 ($V_{CE}=0.4\text{V}$) | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 50 | 100 | 0.4($I_F=10\text{mA}$) ($I_C=4\text{mA}$) |
| CNX82A | | 40-80 ($V_{CE}=5\text{V}$) | | | | | | 0.4($I_F=10\text{mA}$) ($I_C=2.5\text{mA}$) |
| CNY17F-1 | | 63-125 ($V_{CE}=5\text{V}$) | | | | | | |
| CNY17F-2 | | 100-200 ($V_{CE}=5\text{V}$) | | | | | | |
| CNY17F-3 | | 160-320 ($V_{CE}=5\text{V}$) | | | | 70 | | |
| CNY17F-4 | | 200-400 ($V_{CE}=5\text{V}$) | | | | | | |
| CNY17F-5 | | 100 | | | | | | 0.4($I_F=10\text{mA}$) ($I_C=0.5\text{mA}$) |
| IS205 | | /50 ¹ | | | | | | 0.4($I_F=1\text{mA}$) ($I_C=0.5\text{mA}$) |
| IS205-1 | | 50/2 | | | | | | |
| IS205-2 | | 70 ² /100 ¹ | | | | | | |
| IS205-3 | | 50 | | | | 50 | | 0.4($I_F=10\text{mA}$) ($I_C=0.5\text{mA}$) |
| IS206 | | 50-80 | | | | | | 0.4($I_F=5\text{mA}$) ($I_C=0.5\text{mA}$) |
| MOC8101 | | 73-117 | | | | | | |
| MOC8102 | | | | | | | | |

Note 1 Test Condition: $I_F=1\text{mA}$, $V_{CE}=0.4\text{V}$

Note 2 Test Condition: $I_F=0.5\text{mA}$, $V_{CE}=0.4\text{V}$

 DRAWINGS OVERLEAF

6 Pin DIL & SMD Optocouplers cont.

Transistor Output - Non Base

| Part Number | Features | Current Transfer Ratio $I_F = 10\text{mA}$ $V_{CE} = 10\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 10\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(SAT)}$ Max (V) |
|-------------|---|---|-------------------------------|--|---|---|--|--|
| MOC8103 | Single channel Optocoupler with a Phototransistor Output with base lead not connected for improved noise immunity | 103-173 | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 50 | 100 | 0.4($I_F = 5\text{mA}$) ($I_C = 0.5\text{mA}$) |
| MOC8104 | | 160-256 | | | | | | |
| MOC8105 | | 65-133 | | | | | | |
| MOC8106 | | 50-150 | | | | | | |
| MOC8107 | | 100-300 | | | | | | |
| MOC8108 | | 250-600 | | | | | | |
| MOC8111 | | 20 | | | | | | 0.4($I_F = 5\text{mA}$) ($I_C = 1\text{mA}$) |
| MOC8112 | | 50 | | | | | | |
| MOC8113 | | 100 | | | | | | |

AC Input

| Part Number | Features | Current Transfer Ratio $I_F = \pm 10\text{mA}$ $V_{CE} = 10\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = \pm 20\text{mA}$ Max (V) | BV_{CEO} $I_C = 0.1\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(SAT)}$ $I_F = \pm 10\text{mA}$ $I_C = 0.5\text{mA}$ Max (V) | | |
|-------------|---|---|-------------------------------|--|---|---|--|---|----|-------------------------------|
| CNY35 | Single channel Optocoupler with two infrared LED's wired in inverse parallel allowing operation with AC input voltage | 10 | 7.5(pk) 5.3(rms) | $\pm 50\text{mA}$ | 1.4 | 30 | 50 | 0.4 | | |
| H11AA1 | | 20 | | | | | | | | |
| H11AA2 | | 10 | | | | | | | | |
| H11AA3 | | 50 | | | | | | | | |
| H11AA4 | | 100 | | | | | | | | |
| IS604 | | 50 | | | | | | | | |
| IS733 | | 20-300 ($I_F = 1\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | | | 35 | 100 ($V_{CE} = 20\text{V}$) |

Darlington Output - Base Connected

| Part Number | Features | Current Transfer Ratio $I_F = 10\text{mA}$ $V_{CE} = 10\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 50\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(SAT)}$ $I_F = 8\text{mA}$ $I_C = 2\text{mA}$ Max (V) | |
|-------------|---|---|-------------------------------|--|---|---|--|--|-----|
| 4N29 | Single channel Optocoupler with a Photo-Darlington Transistor | 100 | 7.5(pk) 5.3(rms) | 60mA | 1.5 | 30 | 100 | 1 | |
| 4N30 | | | | | | | | 50 | 1.2 |
| 4N31 | | | | | | | | | 500 |
| 4N32 | | 500 ($I_F = 1\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | | 1.0($I_F = 1\text{mA}$) ($I_C = 1\text{mA}$) | |
| 4N33 | | | | | | | | | |
| H11B1 | | 100 ($I_F = 1\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | | 1.0($I_F = 50\text{mA}$) ($I_C = 50\text{mA}$) | |
| H11B2 | | 100 ($V_{CE} = 5\text{V}$) | | | | | | | |
| H11B3 | | 500 ($V_{CE} = 5\text{V}$) | | | | | | 1.0($I_F = 1\text{mA}$) ($I_C = 2\text{mA}$) | |
| MCA2230 | | 500 ($V_{CE} = 5\text{V}$) | | | | | | 1.0($I_F = 50\text{mA}$) ($I_C = 50\text{mA}$) | |
| MCA2231 | | | | | | | | | 55 |
| MCA2255 | | 100 ($V_{CE} = 5\text{V}$) | | | | | | 1.0($I_F = 50\text{mA}$) ($I_C = 50\text{mA}$) | |
| MCA255 | | | | | | | | | |
| MCA230 | | 500 ($V_{CE} = 5\text{V}$) | | | | | | 1.0($I_F = 1\text{mA}$) ($I_C = 1\text{mA}$) | |
| MCA231 | | | | | | | | | 30 |
| MOC8080 | | 500 ($V_{CE} = 5\text{V}$) | | | | | | 1.0($I_F = 50\text{mA}$) ($I_C = 50\text{mA}$) | |
| TIL113 | | 500 ($V_{CE} = 1\text{V}$) | | | | | | 1.0($I_F = 50\text{mA}$) ($I_C = 50\text{mA}$) | |

6 Pin DIL & SMD Optocouplers

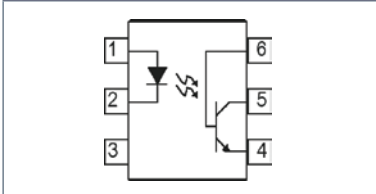
Darlington Output - Non Base

| Part Number | Features | Current Transfer Ratio $I_F = 1\text{mA}$ $V_{CE} = 2\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 10\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(\text{Dark})}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(\text{SAT})}$ Max (V) |
|-------------|--|---|-------------------------------|--|---|---|---|--|
| ISPD60 | Single channel Optocoupler with a Photo-Darlington Transistor with base lead not connected for improved noise immunity | 100 | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 35 ($I_C = 0.1\text{mA}$) | 100 | 1.0($I_F = 10\text{mA}$) ($I_C = 10\text{mA}$) |
| ISPD61 | | 500 | | | | | | |
| ISPD62 | | 1000 | | | | | | |
| ISPD63 | | 100 | | | | | | |
| ISPD64 | | 500 | | | | | | |
| ISPD65 | | 1000 | | | | | | |
| MOC8020 | | 500 ($I_F = 10\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | | |
| MOC8021 | | 1000 ($I_F = 10\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | | |
| MOC8030 | | 300 ($I_F = 10\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | | |
| MOC8050 | | 500 ($I_F = 10\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | | |
| TIL119 | | 300 ($I_F = 10\text{mA}$) ($V_{CE} = 1\text{V}$) | | | | | | |

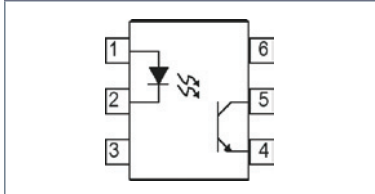
Darlington Output - Base Connected High Voltage

| Part Number | Features | Current Transfer Ratio $I_F = 10\text{mA}$ $V_{CE} = 10\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 10\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(\text{Dark})}$ Max (nA) | $V_{CE(\text{SAT})}$ Max (V) |
|-------------|---|---|-------------------------------|--|---|---|------------------------------------|--|
| H11G1 | Single channel Optocoupler with a Photo-Darlington Transistor with a high operating voltage | 1000 ($I_F = 1\text{mA}$) ($V_{CE} = 5\text{V}$) | 7.5(pk) 5.3(rms) | 50 | 1.4 | 55 | 100 ($V_{CE} = 80\text{V}$) | 1.0 ($I_F = 1\text{mA}$) ($I_C = 1\text{mA}$) |
| H11G2 | | | | | | | 80 ($V_{CE} = 60\text{V}$) | |
| H11G3 | | 200 ($I_F = 1\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | 100 ($V_{CE} = 30\text{V}$) | 1.2 ($I_F = 20\text{mA}$) ($I_C = 50\text{mA}$) |
| IS4N45 | | 250 ($I_F = 1\text{mA}$) ($V_{CE} = 1\text{V}$) | | | | | 100 ($V_{CE} = 55\text{V}$) | 1.0 ($I_F = 1\text{mA}$) ($I_{OL} = 2.5\text{mA}$) |
| IS4N46 | | 500 ($I_F = 1\text{mA}$) ($V_{CE} = 1\text{V}$) | | | | | | 1.0 ($I_F = 0.5\text{mA}$) ($I_{OL} = 1.75\text{mA}$) |
| IS660 | | 1000 ($I_F = 1\text{mA}$) ($V_{CE} = 5\text{V}$) | | | | | 200 | 1.2 ($I_F = 20\text{mA}$) ($I_C = 100\text{mA}$) |
| IS661 | | | | | | | 1000 ($V_{CE} = 200\text{V}$) | |
| IS725 | | | | | | | | |

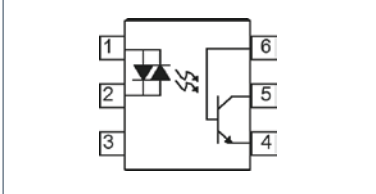
Transistor Output



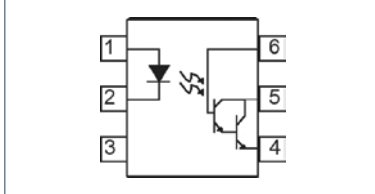
Transistor Output - Non Base



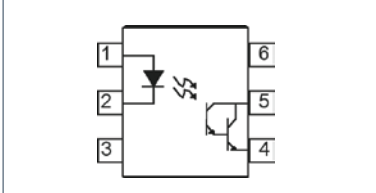
AC Input



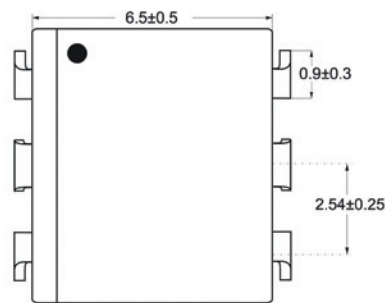
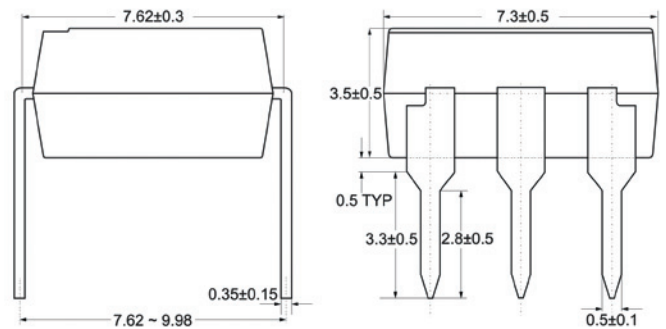
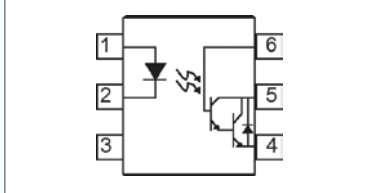
Darlington Output



Darlington Output - Non Base



Darlington Output - High Voltage



8 Pin DIL & SMD Optocouplers

Transistor Output

| Part Number | Features | Current Transfer Ratio $I_F = 5\text{mA}$ $V_{CE} = 5\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_{BR} $I_R = 10\mu\text{A}$ Min (V) | BV_{CEO} $I_C = 0.5\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(SAT)}$ $I_F = 8\text{mA}$ $I_C = 2.4\text{mA}$ Max (V) |
|-------------|---|---|-------------------------------|--|--|---|--|--|
| ISP321-2 | Two channel Optocoupler with a Phototransistor Output | 50-600 | 7.5(pk) 5.3(rms) | 50 | 6 | 80 | 100 | 0.4 |
| ISP521-2 | | 50-600 | | | | 55 | | |
| ISP621-2 | | 50-600 | | | | 35 | | |
| ISP827 | | 50-600 | | | | 55 | | 0.2($I_F = 20\text{mA}$) ($I_C = 1\text{mA}$) |
| ISP624-2 | | 100-1200 ¹ | | | | 80 | | 0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$) |
| PS2501-2 | | 80-600 | | | | 35 | | 0.3($I_F = 10\text{mA}$) ($I_C = 2\text{mA}$) |
| TIL192 | | 20 | | | | 0.4($I_F = 5\text{mA}$) ($I_C = 1\text{mA}$) | | |
| TIL192A | | 50 | | | | | | |
| TIL192B | | 100 | | | | | | |
| TLP321-2 | | 50-600 | | | | 80 | | 0.4 |
| TLP521-2 | | 50-600 | | | | 55 | | |
| TLP621-2 | | 50-600 | | | | 0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$) | | |
| TLP624-2 | | 50-600 | | | | | | |

Note 1 Test condition : $I_F = 1\text{mA}$, $V_{CE} = 0.5\text{V}$

AC Input

| Part Number | Features | Current Transfer Ratio $I_F = \pm 10\text{mA}$ $V_{CE} = 5\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = \pm 20\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(SAT)}$ Max (V) |
|-------------|--|--|---|--|---|---|---|---|
| ISP620-2 | Two channel Optocoupler with two infrared LED's wired in inverse parallel allowing operation with AC input voltage | 40-125 ¹ | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 55 ($I_C = 0.5\text{mA}$) | 100 ($V_{CE} = 24\text{V}$) | 0.4($I_F = \pm 8\text{mA}$) ($I_C = 2.4\text{mA}$) |
| ISP626-2 | | 100-1200 ² 50 ³ | | | | | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$) |
| ISP824 | | 20-300 ⁴ | | | | 35 | 100 | 0.2($I_F = \pm 20\text{mA}$) ($I_C = 1\text{mA}$) |
| PS2505-2 | | 80-600 | | | | 80 | 100 ($V_{CE} = 40\text{V}$) | 0.3($I_F = \pm 10\text{mA}$) ($I_C = 2\text{mA}$) |
| TIL195 | | 20 | | | | 35 | 100 ($V_{CE} = 24\text{V}$) | 0.4($I_F = \pm 5\text{mA}$) ($I_C = 1\text{mA}$) |
| TIL195A | | 50 | | | | | | |
| TIL195B | | 100 | | | | | | |
| TLP620-2 | | 40-125 ¹ | | | | 55 | 0.4($I_F = \pm 8\text{mA}$) ($I_C = 2.4\text{mA}$) | |
| TLP626-2 | 100-1200 ² 50 ³ | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$) | | | | | |

Note 1 Test condition: $I_F = \pm 5\text{mA}$

Note 2 Test condition: $I_F = \pm 1\text{mA}$, $V_{CE} = 0.5\text{V}$

Note 3 Test condition: $I_F = \pm 0.5\text{mA}$, $V_{CE} = 1.5\text{V}$

Note 4 Test conditions: $I_F = \pm 1\text{mA}$

Darlington Output

| Part Number | Features | Current Transfer Ratio $I_F = 1\text{mA}$ $V_{CE} = 1\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 20\text{mA}$ Max (V) | V_{BR} $I_R = 10\mu\text{A}$ Min (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(SAT)}$ Max (V) |
|-------------|--|---|-------------------------------|--|---|--|---|--|--|
| ISP825 | Two channel Optocoupler with a Photo-Darlington Transistor | 600-7500 ($V_{CE} = 2\text{V}$) | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 6 | 35 ($I_C = 0.1\text{mA}$) | 1($I_F = 20\text{mA}$) ($I_C = 5\text{mA}$) | |
| ISP825-1 | | /800 ¹ | | | | | | 1($I_F = 1\text{mA}$) ($I_C = 8\text{mA}$) | |
| ISP825-2 | | /400 ² /800 ¹ | | | | | 70 | 1($I_F = 0.5\text{mA}$) ($I_C = 2\text{mA}$) | |
| ISP825-3 | | 200 ³ /400 ² /800 ¹ | | | | | 100 | 1($I_F = 0.25\text{mA}$) ($I_C = 0.5\text{mA}$) | |
| PS2502-2 | | 200-2000 | | | | | | 80 | 1($I_F = 1\text{mA}$) ($I_C = 2\text{mA}$) |
| TIL198 | | 500-7500 ($I_F = 2\text{mA}$) | | | | | 35 | 1($I_F = 2\text{mA}$) ($I_C = 10\text{mA}$) | |
| TIL198A | | 1000-7500 ($I_F = 2\text{mA}$) | | | | | | | |
| TIL198B | | 1500-7500 ($I_F = 2\text{mA}$) | | | | | | | |

Note 1 Test condition: $I_F = 1\text{mA}$, $V_{CE} = 1\text{V}$

Note 2 Test condition: $I_F = 0.5\text{mA}$, $V_{CE} = 1\text{V}$

Note 3 Test condition: $I_F = 0.25\text{mA}$, $V_{CE} = 1\text{V}$

8 Pin DIL & SMD Optocouplers

8 Pin Transistor Symmetrical Configuration DIL & SMD Optocouplers

| Part Number | Features | Current Transfer Ratio $I_F = 10\text{mA}$ $V_{CE} = 10\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_{BR} $I_R = 10\mu\text{A}$ Min (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(Dark)}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(SAT)}$ $I_F = 16\text{mA}$ $I_C = 2\text{mA}$ Max (V) |
|-------------|---|---|-------------------------------|--|--|---|--|---|
| ILD1 | Two channel Optocoupler with a Phototransistor Output | 20-300 | 7.5(pk) 5.3(rms) | 50 | 6 | 50 | 100 ($V_{CE} = 24\text{V}$) | 0.4 |
| ILD2 | | 100-500 | | | | | | |
| ILD5 | | 50-400 | | | | | | |
| ILD74 | | 12.5 ($I_F = 16\text{mA}$ $V_{CE} = 5\text{V}$) | | | | | | |
| IS829 | | 50 ($I_F = 5\text{mA}$ $V_{CE} = 5\text{V}$) | | | | | | |
| ISD1 | | 20 | | | | | | |
| ISD2 | | 100-500 | | | | | | |
| ISD5 | | 50 | | | | | | |
| ISD74 | | 12.5 ($I_F = 16\text{mA}$ $V_{CE} = 5\text{V}$) | | | | | | |
| MCT6 | | 20 | | | | | | |
| MCT61 | | 50 ($I_F = 5\text{mA}$ $V_{CE} = 5\text{V}$) | | | | | | |
| MCT62 | | 100 ($I_F = 5\text{mA}$ $V_{CE} = 5\text{V}$) | | | | | | |
| MCT66 | | 6 | | | | | | |

High CTR, High Sensitivity / Low Input Current

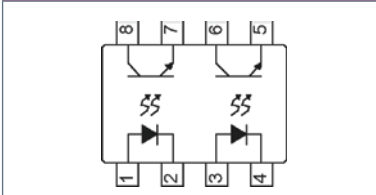
| | | | | | | | | |
|----------|---|-----------------------------------|---------------------|----|---|----|----|---|
| ISD201 | Two channel Optocoupler with a Phototransistor Output | 75 (10) ¹ | 7.5(pk) 5.3(rms) | 50 | 6 | 70 | 50 | 0.4($I_F = 10\text{mA}$) ($I_C = 2\text{mA}$) |
| ISD202 | | 125-250 (30) ¹ | | | | | | |
| ISD203 | | 225-450 (50) ¹ | | | | | | |
| ISD204 | | 200-400 (100) ¹ | | | | | | |
| ISD204-1 | | /50 ² | | | | | | |
| ISD204-2 | | 50/ ³ | | | | | | |
| ISD204-3 | | 70 ³ /100 ² | | | | | | |
| | | | | | | | | |
| | | | | | | | | 0.4($I_F = 0.5\text{mA}$) ($I_C = 0.25\text{mA}$) |
| | | | | | | | | 0.4($I_F = 0.5\text{mA}$) ($I_C = 0.35\text{mA}$) |

Note 1 Test condition : $I_F = 1\text{mA}$

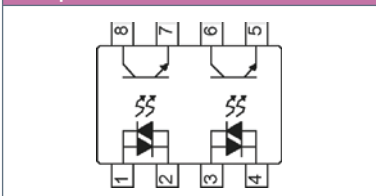
Note 2 Test condition : $I_F = 1\text{mA}$, $V_{CE} = 0.4\text{V}$

Note 3 Test condition : $I_F = 0.5\text{mA}$, $V_{CE} = 0.4\text{V}$

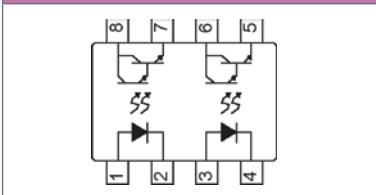
Transistor Output



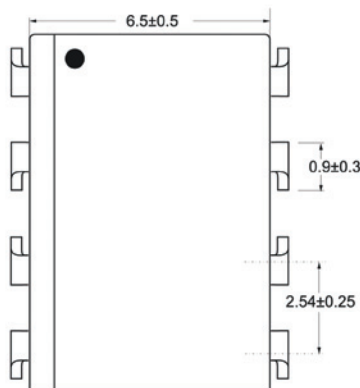
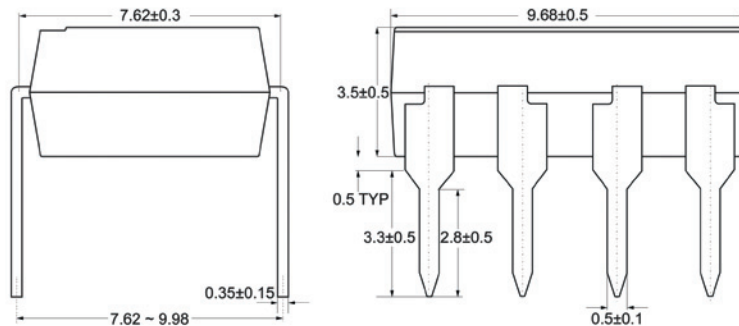
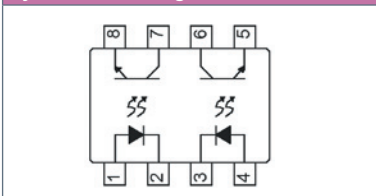
AC Input



Darlington Output



Symmetrical Configuration



16 Pin DIL & SMD Optocouplers

Transistor Output

| Part Number | Features | Current Transfer Ratio $I_F = 5\text{mA}$ $V_{CE} = 5\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_{BR} $I_R = 10\mu\text{A}$ Min (V) | BV_{CEO} $I_C = 0.5\text{mA}$ Min (V) | $I_{CEO(\text{Dark})}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(\text{SAT})}$ $I_F = 8\text{mA}$ $I_C = 2.4\text{mA}$ Max (V) | |
|-------------|--|---|-------------------------------|--|--|---|---|---|--|
| ISP321-4 | Four channel Optocoupler with a Phototransistor Output | 50-600 | 7.5(pk) 5.3(rms) | 50 | 6 | 80 | 100 | 0.4 | |
| ISP521-4 | | 50-600 | | | | | | | |
| ISP621-4 | | 50-600 | | | | | | | |
| ISP847 | | 50-600 | | | | | | 35 | 0.2($I_F = 20\text{mA}$) ($I_C = 1\text{mA}$) |
| ISP624-4 | | 100-1200 ¹ | | | | | | 55 | 0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$) |
| PS2501-4 | | 80-600 | | | | | | 80 | 0.3($I_F = 10\text{mA}$) ($I_C = 2\text{mA}$) |
| TIL193 | | 20 | | | | | | 35 | 0.4($I_F = 5\text{mA}$) ($I_C = 1\text{mA}$) |
| TIL193A | | 50 | | | | | | | |
| TIL193B | | 100 | | | | | | | |
| TLP321-4 | | 50-600 | | | | | | 80 | 0.4 |
| TLP521-4 | | 50-600 | | | | | | | |
| TLP621-4 | | 50-600 | | | | | | | |
| TLP624-4 | | 50-600 | | | | | | 55 | 0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$) |

Note 1 Test Condition: $I_F = 1\text{mA}$, $V_{CE} = 0.5\text{V}$

AC Input

| Part Number | Features | Current Transfer Ratio $I_F = \pm 10\text{mA}$ $V_{CE} = 5\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = \pm 20\text{mA}$ Max (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(\text{Dark})}$ $V_{CE} = 20\text{V}$ Max (nA) | $V_{CE(\text{SAT})}$ Max (V) | | |
|-------------|---|--|-------------------------------|--|---|---|---|--|--|--|
| ISP620-4 | Four channel Optocoupler with two infrared LED's wired in inverse parallel allowing operation with AC input voltage | 40-125 ¹ | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 55 ($I_C = 0.5\text{mA}$) | 100 ($V_{CE} = 24\text{V}$) | 0.4($I_F = \pm 8\text{mA}$) ($I_C = 2.4\text{mA}$) | | |
| ISP626-4 | | 100-1200 ² 50 ³ | | | | | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$) | | |
| ISP844 | | 20-300 ⁴ | | | | | | 35 | 100 | 0.2($I_F = \pm 20\text{mA}$) ($I_C = 1\text{mA}$) |
| PS2505-4 | | 80-600 | | | | | | 80 | 100 ($V_{CE} = 40\text{V}$) | 0.3($I_F = \pm 10\text{mA}$) ($I_C = 2\text{mA}$) |
| TIL196 | | 20 | | | | | | 35 | 100 ($V_{CE} = 24\text{V}$) | 0.4($I_F = \pm 5\text{mA}$) ($I_C = 1\text{mA}$) |
| TIL196A | | 50 | | | | | | | | |
| TIL196B | | 100 | | | | | | | | |
| TLP620-4 | | 40-125 ¹ | | | | | | 55 | 0.4($I_F = \pm 8\text{mA}$) ($I_C = 2.4\text{mA}$) | |
| TLP626-4 | | 100-1200 ² 50 ³ | | | | | | | | 0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$) |

Note 1 Test condition: $I_F = \pm 5\text{mA}$

Note 2 Test condition: $I_F = \pm 1\text{mA}$, $V_{CE} = 0.5\text{V}$

Note 3 Test condition: $I_F = \pm 0.5\text{mA}$, $V_{CE} = 1.5\text{V}$

Note 4 Test condition: $I_F = \pm 1\text{mA}$

Darlington Output

| Part Number | Features | Current Transfer Ratio $I_F = 1\text{mA}$ $V_{CE} = 1\text{V}$ Min (%) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F = 20\text{mA}$ Max (V) | V_{BR} $I_R = 10\mu\text{A}$ Min (V) | BV_{CEO} $I_C = 1\text{mA}$ Min (V) | $I_{CEO(\text{Dark})}$ $V_{CE} = 10\text{V}$ Max (nA) | $V_{CE(\text{SAT})}$ Max (V) | |
|-------------|---|---|-------------------------------|--|---|--|---|---|---|---|
| ISP845 | Four channel Optocoupler with a Photo-Darlington Transistor | 600-7500 ($V_{CE} = 2\text{V}$) | 7.5(pk) 5.3(rms) | 50mA | 1.4 | 6 | 35 ($I_C = 0.1\text{mA}$) | 100 | 1($I_F = 20\text{mA}$) ($I_C = 5\text{mA}$) | |
| ISP845-1 | | /800 ¹ | | | | | | | 1($I_F = 1\text{mA}$) ($I_C = 8\text{mA}$) | |
| ISP845-2 | | /400 ² /800 ¹ | | | | | | | 1($I_F = 0.5\text{mA}$) ($I_C = 2\text{mA}$) | |
| ISP845-3 | | 200 ³ /400 ² /800 ¹ | | | | | | | 1($I_F = 0.25\text{mA}$) ($I_C = 0.5\text{mA}$) | |
| PS2502-4 | | 200-2000 | | | | | | | 80 | 1($I_F = 1\text{mA}$) ($I_C = 2\text{mA}$) |
| TIL199 | | 500-7500 ($I_F = 2\text{mA}$) | | | | | | | 35 | 1($I_F = 2\text{mA}$) ($I_C = 10\text{mA}$) |
| TIL199A | | 1000-7500 ($I_F = 2\text{mA}$) | | | | | | | | |
| TIL199B | | 1500-7500 ($I_F = 2\text{mA}$) | | | | | | | | |

Note 1 Test condition: $I_F = 1\text{mA}$, $V_{CE} = 1\text{V}$

Note 2 Test condition: $I_F = 0.5\text{mA}$, $V_{CE} = 1\text{V}$

Note 3 Test condition: $I_F = 0.25\text{mA}$, $V_{CE} = 1\text{V}$

16 Pin DIL & SMD Optocouplers

16 Pin Transistor Symmetrical Configuration DIL & SMD Optocouplers

| Part Number | Features | Current Transfer Ratio | Min (KV) Isolation Voltage | Forward Current | V_{BR} | BV_{CEO} $I_C=1mA$ | $I_{CEO(Dark)}$ $V_{CE}=10V$ | $V_{CE(SAT)}$ $I_F=16mA$ $I_C=2mA$ | | |
|-------------|--|---------------------------------------|----------------------------|-----------------|----------|-------------------------|---------------------------------|--|---------------------------------|---------------------------------|
| | | $I_F=10mA$ $V_{CE}=10V$ Min (%) | Min (KV) | Max (mA) | Min (V) | Min (V) | Max (nA) | Max (V) | | |
| ILQ1 | Four channel Optocoupler with a Phototransistor Output | 20-300 | 7.5(pk) 5.3(rms) | 50 | 6 | 50 | 50 | 0.4 | | |
| ILQ2 | | 100-500 | | | | 70 | | | | |
| ILQ5 | | 50-400 | | | | | | | | |
| ILQ74 | | $12.5(I_F=16mA, V_{CE}=5V)$ | | | | 50 | | | | |
| IS849 | | $50(I_F=5mA, V_{CE}=5V)$ | | | | 35 | | | 100 ($V_{CE}=24V$) | 0.2($I_F=20mA$) ($I_C=1mA$) |
| ISQ1 | | 20 | | | | 50 | | | 0.3($I_F=10mA$) ($I_C=2mA$) | |
| ISQ2 | | 100-500 | | | | 70 | | | 0.4($I_F=5mA$) ($I_C=1mA$) | |
| ISQ5 | | 50 | | | | | | | 0.4 | |
| ISQ74 | | $12.5(I_F=16mA, V_{CE}=5V)$ | | | | 50 | | | | |

High CTR, High Sensitivity / Low Input Current

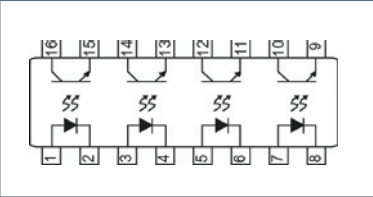
| | | | | | | | | | |
|----------|--|-----------------------------------|---------------------|----|---|----|----|---------------------------------|-------------------------------------|
| ISQ201 | Four channel Optocoupler with a Phototransistor Output | 75 (10) ¹ | 7.5(pk) 5.3(rms) | 50 | 6 | 70 | 50 | 0.4($I_F=10mA$) ($I_C=2mA$) | |
| ISQ202 | | 125-250 (30) ¹ | | | | | | | |
| ISQ203 | | 225-450 (50) ¹ | | | | | | | |
| ISQ204 | | 200-400 (100) ¹ | | | | | | | |
| ISQ204-1 | | /50 ² | | | | | | | 0.4($I_F=1mA$) ($I_C=0.5mA$) |
| ISQ204-2 | | 50 ³ | | | | | | | 0.4($I_F=0.5mA$) ($I_C=0.25mA$) |
| ISQ204-3 | | 70 ³ /100 ² | | | | | | | 0.4($I_F=0.5mA$) ($I_C=0.35mA$) |

Note 1 Test Condition: $I_F=1mA$

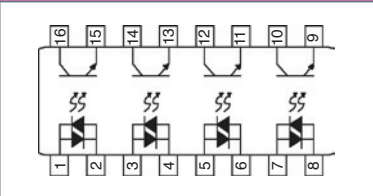
Note 2 Test Condition: $I_F=1mA, V_{CE}=0.4V$

Note 3 Test Condition: $I_F=0.5mA, V_{CE}=0.4V$

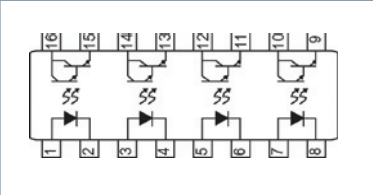
Transistor Output



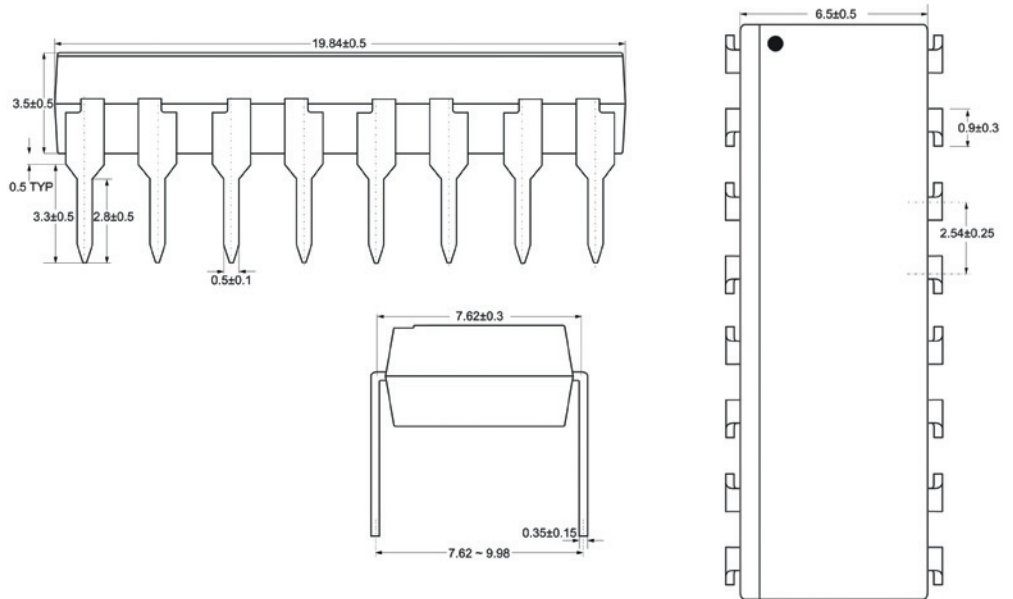
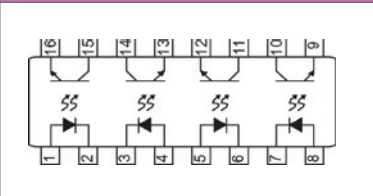
AC Input



Darlington Output



Symmetrical Configuration



6 Pin DIL & SMD Triac Optocouplers

| Random Phase Triac | | | | | | | |
|--------------------|--|-------------------------------------|---------------------|--|-----------------------------|---|---|
| Part Number | Features | Input Trigger Current $V_D = 3V$ | Isolation Voltage | Continuous Forward Current Input Diode | V_{BR} $I_R = 10\mu A$ | I_{DRM} Peak Off-State Current $V_{DRM} = \text{Rated}$ | V_{DRM} Peak Blocking Voltage $I_{DRM} = 0.1mA$ |
| | | Max (mA) | Min (KV) | Max (mA) | Min (V) | Max (nA) | Min (V) |
| H11J1 | Infrared Emitting Diode And Light Activated Silicon Bilateral Switch | 10 | 7.5(pk) 5.3(rms) | 50 | 6 | 100 | 250 |
| H11J2 | | 15 | | | | | |
| H11J3 | | 10 | | | | | |
| H11J4 | | 15 | | | | | |
| H11J5 | | 25 | | | | | |
| IS3009 | | 30 | | | | | |
| IS3010 | | 15 | | | | | |
| IS3011 | | 10 | | | | | |
| IS3012 | | 5 | | | | | |
| IS3020 | | 30 | | | | | |
| IS3021 | | 15 | | | | | |
| IS3022 | | 10 | | | | | |
| IS3023 | | 5 | | | | | |
| IS3051 | | 15 | | | | | |
| IS3052 | | 10 | | | | | |
| IS6003 | | 3 | | | | | |
| IS6005 | | 5 | | | | | |
| IS6010 | | 10 | | | | | |
| IS6015 | | 15 | | | | | |
| IS6030 | | 30 | | | | | |
| IS607 | | 10 | | | | | |
| IS608 | | 7 | | | | | |
| MOC3009 | | 30 | | | | | |
| MOC3010 | | 15 | | | | | |
| MOC3011 | | 10 | | | | | |
| MOC3012 | | 5 | | | | | |
| MOC3020 | | 30 | | | | | |
| MOC3021 | | 15 | | | | | |
| MOC3022 | | 10 | | | | | |
| MOC3023 | | 5 | | | | | |
| MOC3051 | 15 | | | | | | |
| MOC3052 | 10 | | | | | | |
| | | | | | | | 400 |
| | | | | | | | 250 |
| | | | | | | | 400 |
| | | | | | | | 600 |
| | | | | | | | 450 |
| | | | | | | | 250 |
| | | | | | | | 400 |
| | | | | | | | 600 |

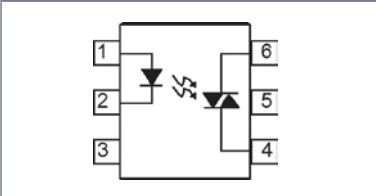
| Zero Crossing Triac | | | | | | | |
|---------------------|--|-------------------------------------|---------------------|--|-----------------------------|---|---|
| Part Number | Features | Input Trigger Current $V_D = 3V$ | Isolation Voltage | Continuous Forward Current Input Diode | V_{BR} $I_R = 10\mu A$ | I_{DRM} Peak Off-State Current $V_{DRM} = \text{Rated}$ | V_{DRM} Peak Blocking Voltage $I_{DRM} = 0.1mA$ |
| | | Max (mA) | Min (KV) | Max (mA) | Min (V) | Max (nA) | Min (V) |
| IS3030 | Infrared Emitting Diode And Light Activated Zero Crossing Bilateral Switch | 30 | 7.5(pk) 5.3(rms) | 50 | 6 | 300 | 250 |
| IS3031 | | 15 | | | | | |
| IS3032 | | 10 | | | | | |
| IS3033 | | 5 | | | | | |
| IS3040 | | 30 | | | | | |
| IS3041 | | 15 | | | | | |
| IS3042 | | 10 | | | | | |
| IS3043 | | 5 | | | | | |
| IS3060 | | 30 | | | | | |
| IS3061 | | 15 | | | | | |
| | | | | | | | 400 |
| | | | | | | | 600 |

6 Pin DIL & SMD Triac Optocouplers

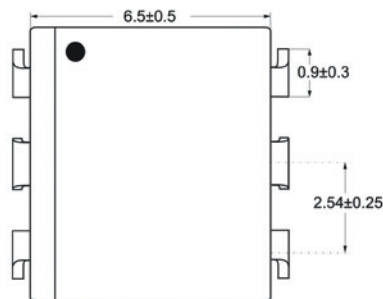
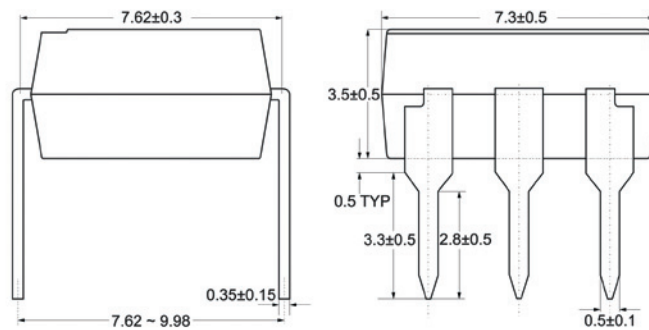
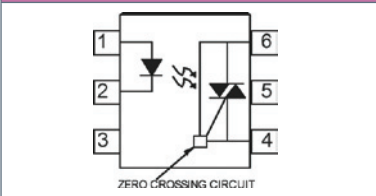
Zero Crossing Triac

| Part Number | Features | Input Trigger Current $V_0 = 3V$ | Isolation Voltage | Continuous Forward Current Input Diode | V_{BR} $I_R = 10\mu A$ | I_{DRM} Peak Off-State Current $V_{DRM} = \text{Rated}$ | V_{DRM} Peak Blocking Voltage $I_{DRM} = 0.1mA$ |
|-------------|--|-------------------------------------|---------------------|---|-----------------------------|---|---|
| | | Max (mA) | Min (KV) | Max (mA) | Min (V) | Max (nA) | Min (V) |
| IS3062 | Infrared Emitting Diode And Light Activated Zero Crossing Bilateral Switch | 10 | 7.5(pk) 5.3(rms) | 50 | 6 | 300 | 600 |
| IS3063 | | 5 | | | | | |
| IS3080 | | 30 | | | | | 800 |
| IS3081 | | 15 | | | | | |
| IS3082 | | 10 | | | | | 400 |
| IS3083 | | 5 | | | | | |
| IS620 | | 30 | | | | | 400 |
| IS621 | | 15 | | | | | |
| IS622 | | 10 | | | | | 250 |
| IS623 | | 5 | | | | | |
| MOC3030 | | 30 | | | | | 400 |
| MOC3031 | | 15 | | | | | |
| MOC3032 | | 10 | | | | | 600 |
| MOC3033 | | 5 | | | | | |
| MOC3040 | | 30 | | | | | 800 |
| MOC3041 | | 15 | | | | | |
| MOC3042 | | 10 | | | | | 400 |
| MOC3043 | | 5 | | | | | |
| MOC3060 | | 30 | | | | | 600 |
| MOC3061 | | 15 | | | | | |
| MOC3062 | | 10 | | | | | 800 |
| MOC3063 | | 5 | | | | | |
| MOC3080 | | 30 | | | | | |
| MOC3081 | | 15 | | | | | |
| MOC3082 | | 10 | | | | | |
| MOC3083 | | 5 | | | | | |

Random Phase Triac



Zero Crossing Triac



4 Pin Mini Flat Package

Transistor Output

| Part Number | Features | Current Transfer Ratio $I_F = 5\text{mA}$ $V_{CE} = 5\text{V}$ | Isolation Voltage | Continuous Forward Current | V_F $I_F = 20\text{mA}$ | BV_{CEO} $I_C = 0.5\text{mA}$ | $I_{CEO(\text{Dark})}$ $V_{CE} = 20\text{V}$ | $V_{CE(\text{SAT})}$ $I_F = 20\text{mA}$ $I_C = 1\text{mA}$ |
|-------------|--|--|--------------------------|----------------------------|------------------------------|------------------------------------|---|---|
| | | Min (%) | Min (KV _{RMS}) | Max (mA) | Max (V) | Min (V) | Max (nA) | Max (V) |
| IS121 | Single channel Optocoupler with a Phototransistor Output | 50-600 | 3.75 | 50 | 1.4 | 35 | 100 | 0.2 |
| IS181 | | | | | | | | |
| IS2701-1 | | | | | | | | |
| IS357 | | | | | | | | |
| IS357A | | | | | | | | |
| IS357B | | | | | | | | |
| IS357C | | | | | | | | |
| IS357D | | | | | | | | |

AC Input

| Part Number | Features | Current Transfer Ratio $I_F = \pm 1\text{mA}$ $V_{CE} = 5\text{V}$ | Isolation Voltage | Continuous Forward Current | V_F $I_F = \pm 20\text{mA}$ | BV_{CEO} $I_C = 0.1\text{mA}$ | $I_{CEO(\text{Dark})}$ $V_{CE} = 20\text{V}$ | $V_{CE(\text{SAT})}$ $I_F = \pm 20\text{mA}$ $I_C = 1\text{mA}$ |
|-------------|---|--|--------------------------|----------------------------|----------------------------------|------------------------------------|---|---|
| | | Min (%) | Min (KV _{RMS}) | Max (mA) | Max (V) | Min (V) | Max (nA) | Max (V) |
| IS126 | Single channel Optocoupler with two infrared LED's wired in inverse parallel allowing operation with AC input voltage | 20-400 | 3.75 | ± 50 | 1.4 | 35 | 100 | 0.2 |
| IS2705-1 | | | | | | | | |
| IS354 | | | | | | | | |
| IS354A | | | | | | | | |

Darlington Output

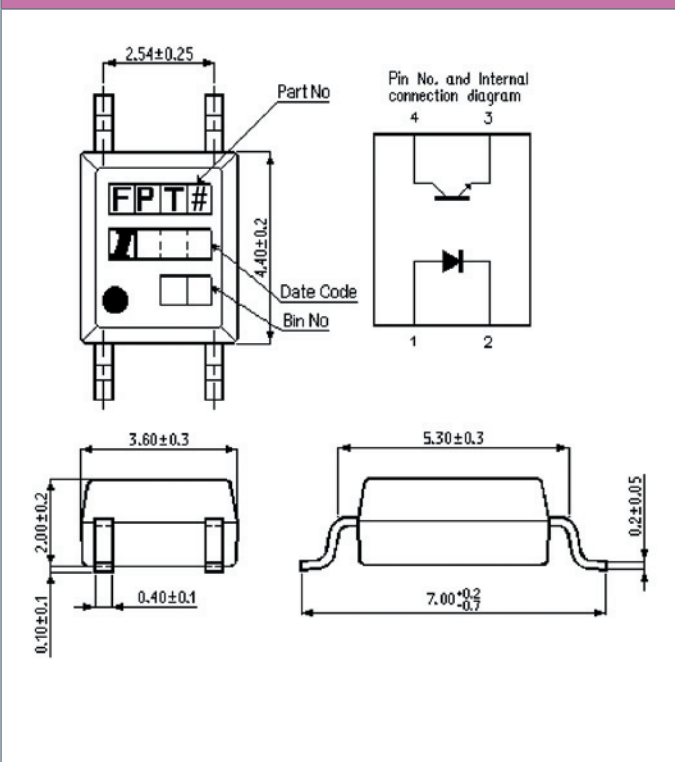
| Part Number | Features | Current Transfer Ratio $I_F = 1\text{mA}$ $V_{CE} = 2\text{V}$ | Isolation Voltage | Continuous Forward Current | V_F $I_F = 20\text{mA}$ | BV_{CEO} $I_C = 0.1\text{mA}$ | $I_{CEO(\text{Dark})}$ $V_{CE} = 20\text{V}$ | $V_{CE(\text{SAT})}$ $I_F = 20\text{mA}$ $I_C = 1\text{mA}$ |
|-------------|---|--|--------------------------|----------------------------|------------------------------|------------------------------------|---|---|
| | | Min (%) | Min (KV _{RMS}) | Max (mA) | Max (V) | Min (V) | Max (μA) | Max (V) |
| IS355 | Single channel Optocoupler with a Photo-Darlington Transistor | 600-7500 | 3.75 | 50 | 1.4 | 35 | 1 | 1 |
| IS2702-1 | | | | | | | | |

Darlington Output - High Voltage

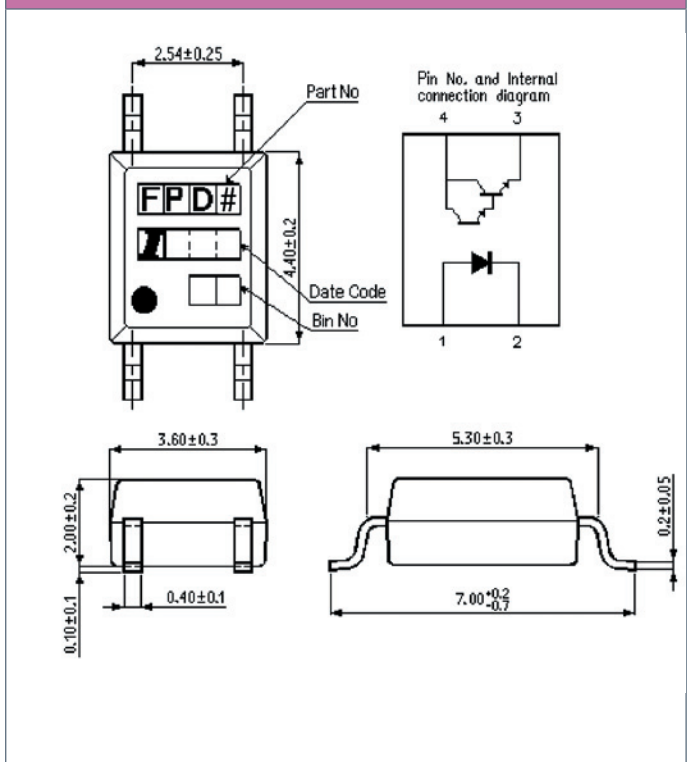
| Part Number | Features | Current Transfer Ratio $I_F = 1\text{mA}$ $V_{CE} = 2\text{V}$ | Isolation Voltage | Continuous Forward Current | V_F $I_F = 10\text{mA}$ | BV_{CEO} $I_C = 0.1\text{mA}$ | $I_{CEO(\text{Dark})}$ $V_{CE} = 200\text{V}$ | $V_{CE(\text{SAT})}$ $I_F = 20\text{mA}$ $I_C = 100\text{mA}$ |
|-------------|---|--|--------------------------|----------------------------|------------------------------|------------------------------------|--|---|
| | | Min (%) | Min (KV _{RMS}) | Max (mA) | Max (V) | Min (V) | Max (nA) | Max (V) |
| IS2732-1 | Single channel Optocoupler with a Photo-Darlington Transistor with a high operating voltage | 1000 | 3.75 | 50 | 1.4 | 300 | 200 | 1.2 |
| IS452 | | | | | | | | |
| IS127 | | | | | | | | |

4 Pin Mini Flat Package

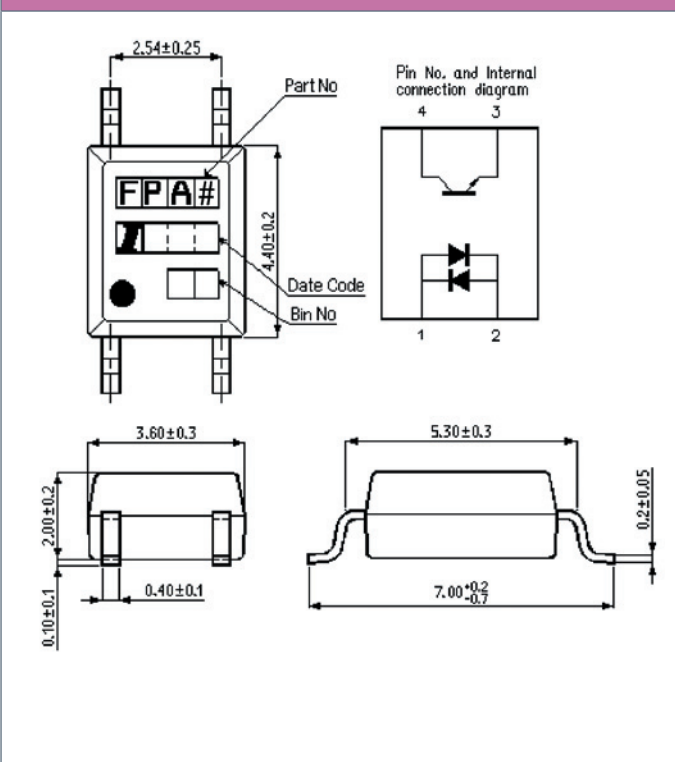
Transistor Output



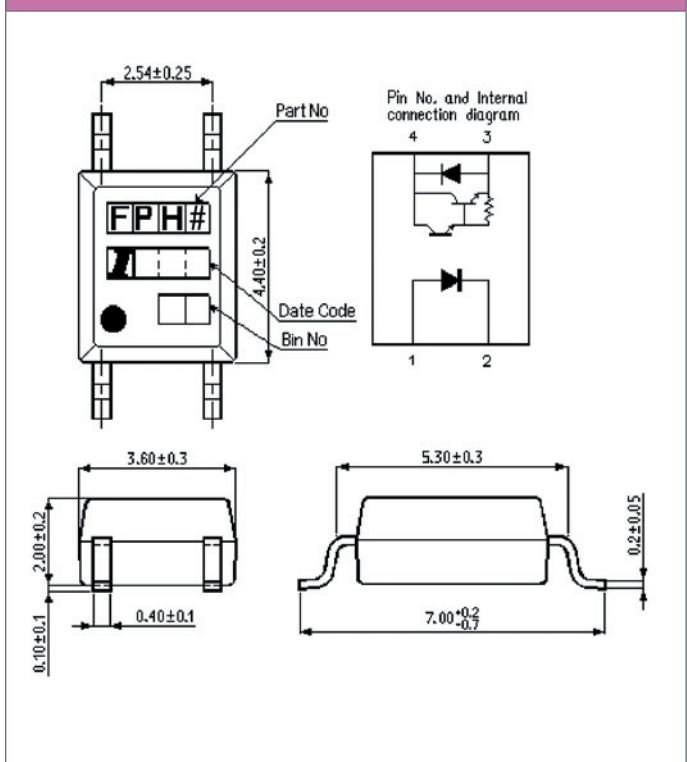
Darlington Output



AC Input



Darlington Output - High Voltage



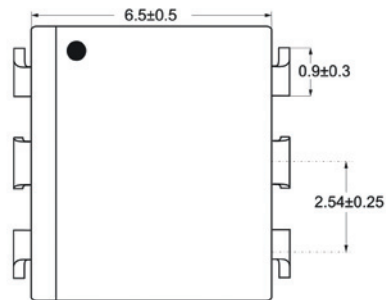
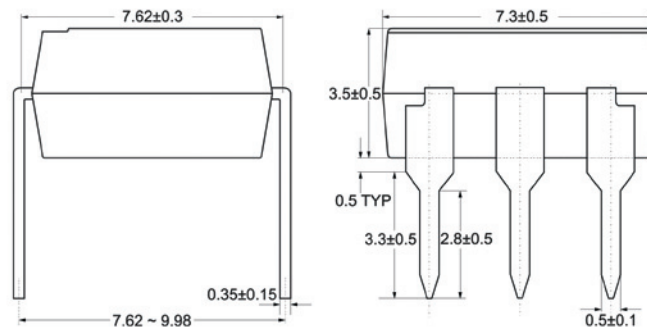
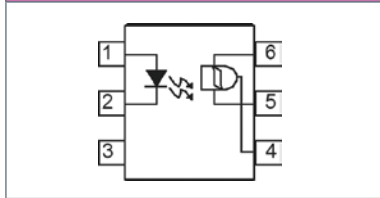
= Internal binning

6 Pin DIL & SMD Schmitt Optocouplers

Schmitt Trigger

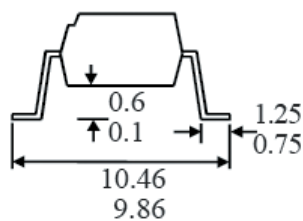
| Part Number | Features | Turn-On Threshold Current $R_L=270\Omega$ $V_{CE}=5V$ Max (mA) | Turn-Off Threshold Current $R_L=270\Omega$ $V_{CE}=5V$ Min (mA) | Isolation Voltage Min (KV) | Continuous Forward Current Max (mA) | V_F $I_F=50mA$ Max (V) | $V_{BR}(LED)$ $I_R=10\mu A$ Min (V) | Output Voltage (Low) $R_L=270\Omega$ $V_{CC}=5V$ Max (V) |
|-------------|---------------------------|---|--|-------------------------------|--|--------------------------------|---|---|
| H11L1 | Microprocessor compatible | 1.6 | 0.3 | 7.5(pk) 5.3(rms) | 50mA | 1.5 | 100 | 0.4 |
| H11L2 | | 10 | | | | | | |
| H11L3 | | 5 | | | | | | |
| H11L4 | | 2.0 | | | | | | |
| IS609 | | 1.6 | | | | | | |
| MOC5007 | | 4 | | | | | | |
| MOC5008 | | 10 | | | | | | |
| MOC5009 | | | | | | | | |

Schmitt Trigger

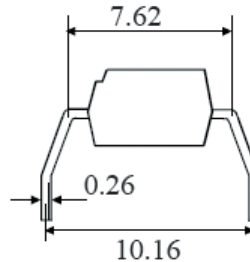


Lead Form Diagrams

**OPTION SM
SURFACE MOUNT**



OPTION G



Mini Flat Triac Series

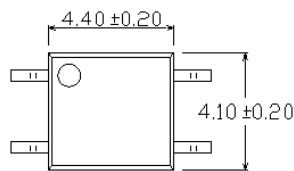
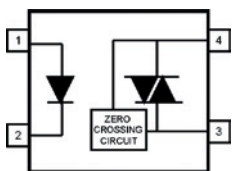
Zero Crossing Series

| Part Number | Features | Input Trigger Current $V_D = 3V$ | Isolation Voltage Min (vrms) | Continuous Forward Current Input Diode Max (mA) | V_{BR} $I_R = 10\mu A$ Min (V) | I_{DRM} Peak Off-State Current V_{DRM} Rated Max (mA) | V_{DRM} Peak Blocking Voltage $I_{DRM} = 0.1mA$ |
|-------------|--|-------------------------------------|---------------------------------|---|--|--|---|
| | | Max (mA) | | | | | Min (V) |
| MF3030 | Infrared Emitting Diode and Light activated Zero crossing Bilateral Switch in a space saving Mini Flat Package | 30 | 3750 | 60 | 6 | 100 | 250 |
| MF3031 | | 15 | | | | | |
| MF3032 | | 10 | | | | | |
| MF3033 | | 5 | | | | | |
| MF3040 | | 30 | | | | | 400 |
| MF3041 | | 15 | | | | | |
| MF3042 | | 10 | | | | | |
| MF3043 | | 5 | | | | | |
| MF3060 | | 30 | | | | | 600 |
| MF3061 | | 15 | | | | | |
| MF3062 | | 10 | | | | | |
| MF3063 | | 5 | | | | | |
| MF3080 | | 30 | | | | | 800 |
| MF3081 | | 15 | | | | | |
| MF3082 | | 10 | | | | | |
| MF3083 | | 5 | | | | | |

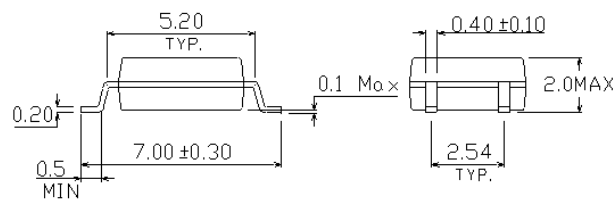
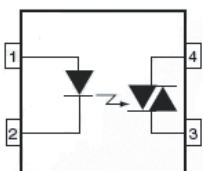
Random Phase Series

| Part Number | Features | Input Trigger Current $V_D = 3V$ | Isolation Voltage Min (vrms) | Continuous Forward Current Input Diode Max (mA) | V_{BR} $I_R = 10\mu A$ Min (V) | I_{DRM} Peak Off-State Current V_{DRM} Rated Max (mA) | V_{DRM} Peak Blocking Voltage $I_{DRM} = 0.1mA$ |
|-------------|--|-------------------------------------|---------------------------------|---|--|--|---|
| | | Max (mA) | | | | | Min (V) |
| MF3009 | Infrared Emitting Diode and Light activated Zero crossing Bilateral Switch in a space saving Mini Flat Package | 30 | 3750 | 60 | 6 | 100 | 250 |
| MF3010 | | 15 | | | | | |
| MF3011 | | 10 | | | | | |
| MF3012 | | 5 | | | | | |
| MF3020 | | 30 | | | | | 400 |
| MF3021 | | 15 | | | | | |
| MF3022 | | 10 | | | | | |
| MF3023 | | 5 | | | | | |
| MF3051 | | 15 | | | | | 600 |
| MF3052 | | 10 | | | | | |

Zero Crossing Pin Configuration




Random Phase Pin Configuration



Cross List

| Isocom Part No. | Avago Part No. | Fairchild Part No. | SHARP Part No. | NEC Part No. | Toshiba Part No. |
|-----------------|----------------|--------------------|----------------|--------------|------------------------------|
| 6N135 | 6N135 | 6N135 | | | |
| 6N136 | 6N136 | 6N136 | | | |
| 6N137 | 6N137 | 6N137 | | | |
| 6N138 | 6N138 | 6N138 | | | |
| 6N139 | 6N139 | 6N139 | | | |
| ICPL-3120 | HCPL-3120 | | | | |
| ICPLW137 | HCNW137 | | | | |
| ICPLW2601 | HCNW2601 | | | | |
| ICPLW2611 | HCNW2611 | | | | |
| ICPL2601 | HCPL2601 | HCPL2601 | | | TLP554 TLP2601 |
| ICPL2611 | HCPL2611 | HCPL2611 | | PS9587 | |
| ICPL600 | HCPLM600 | | | | |
| ICPLM601 | HCPLM601 | | | | TLP113 TLP115 TLP115A |
| ICPLM611 | HCPLM611 | FODM611 | PC410L | PS9117A | |
| ICPL0630 | HCPL0630 | HCPL0637 | | | |
| ICPL0631 | HCPL0631 | HCPL0638 | PC4D10 | | |
| ICPL0661 | HCPL0661 | HCPL0639 | | PS9817A-2 | |
| ICPL0600 | HCPL0600 | HCPL0600 | | | |
| ICPL0601 | HCPL0601 | HCPL0601 | | | |
| ICPL0611 | HCPL0611 | HCPL0611 | PC410S | PS9817A-1 | |
| ICPL2630 | HCPL2630 | HCPL2630 | | | TLP2630 |
| ICPL2631 | HCPL2631 | HCPL2631 | | | TLP2631 |
| ICPL2661 | HCPL2661 | | | | |
| ICPLW135 | HCNW135 | | | | |
| ICPLW136 | HCNW136 | | | | |
| ICPL0500 | HCPL0500 | HCPL0500 | | | |
| ICPL0501 | HCPL0501 | HCPL0501 | | | |
| ICPL0530 | HCPL0530 | HCPL0530 | | | |
| ICPL0531 | HCPL0531 | HCPL0531 | | | |
| ICPL2530 | HCPL2530 | HCPL2530 | | | TLP2530 |
| ICPL2531 | HCPL2531 | HCPL2531 | | | TLP2531 |
| ICPL4502 | | HCPL4502 | | | TLP559 TLP750 TLP759 |
| ICPL4503 | | HCPL4503 | | | |
| ICPL452 | | FODM452 | | | TLP112 TLP112A TLP114A |
| ICPL453 | | FODM453 | PC457 | PS8101 | |
| ICPL0452 | | HCPL0452 | | | |
| ICPL0453 | | HCPL0453 | PC457S | | |



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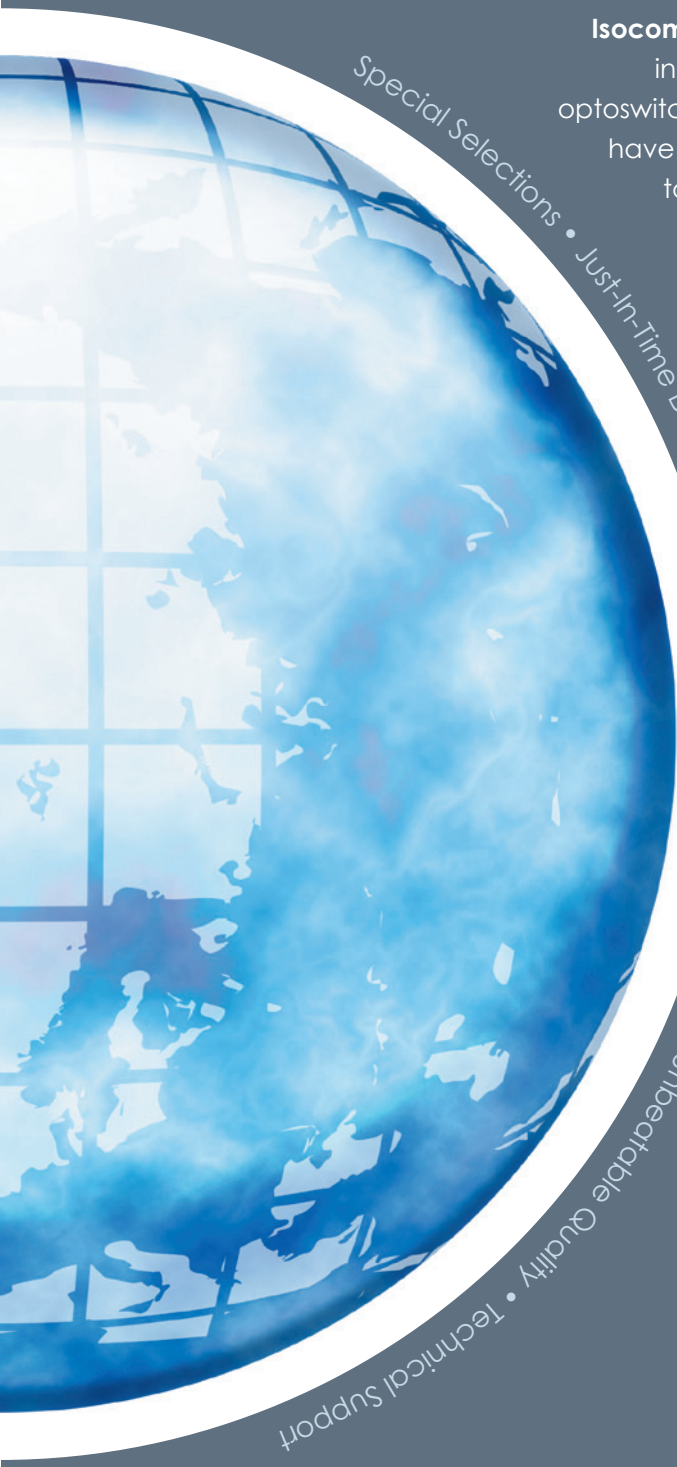
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