

1N5817 THRU 1N5819



Schottky Barrier Rectifiers

Reverse Voltage: 20 to 40 Volts

Forward Current: 1.0 Ampere

RoHS Device

Halogen Free

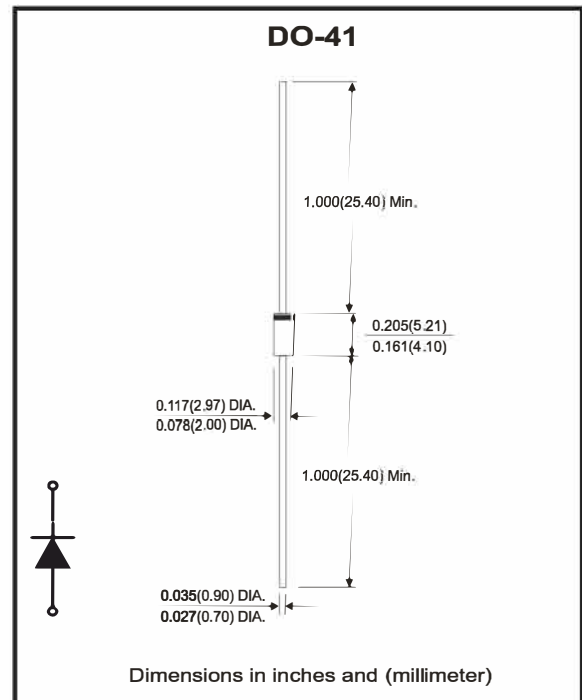


Features

- Metal-Semiconductor junction with guard ring.
- Epitaxial construction.
- Low forward voltage drop.
- High current capability.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

Mechanical data

- Case: JEDEC DO-41 molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode
- Mounting position: Any



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%.

Parameter	Symbol	1N5817	1N5818	1N5819	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forward rectified current @ $T_A=90^\circ\text{C}$	$I_{(AV)}$	1.0			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25			A
Maximum forward voltage at 1.0A DC	V_F	0.450	0.550	0.600	V
Maximum forward voltage at 3.0A DC	V_F	0.750	0.875	0.900	V
Maximum DC reverse current at rated DC blocking voltage	@ $T_J=25^\circ\text{C}$	0.5			mA
	@ $T_J=100^\circ\text{C}$	10			
Typical junction capacitance (Note 1)	C_J	110			pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50			$^\circ\text{C/W}$
Operating temperature range	T_J	-55 to +150			$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150			$^\circ\text{C}$

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance junction to ambient.

Rating and Characteristic Curves

Fig.1 - Forward Current Derating Curve

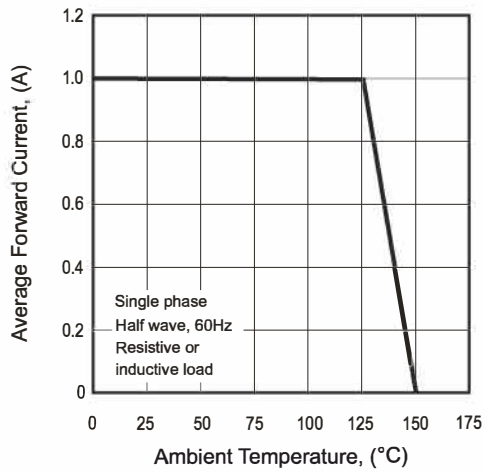


Fig.2 - Maximum Non-Repetitive Surge Current

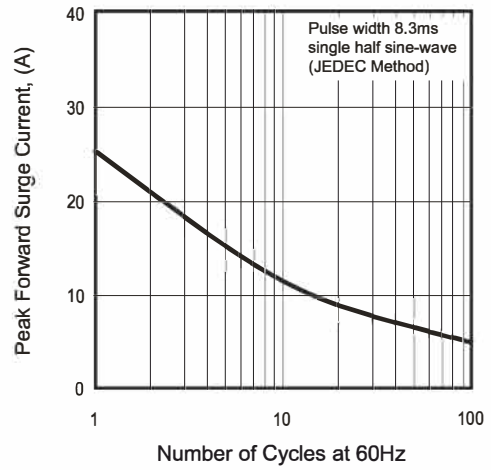


Fig.3 - Typical Junction Capacitance

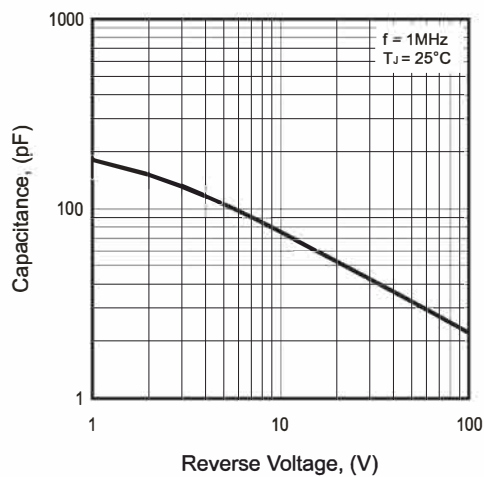
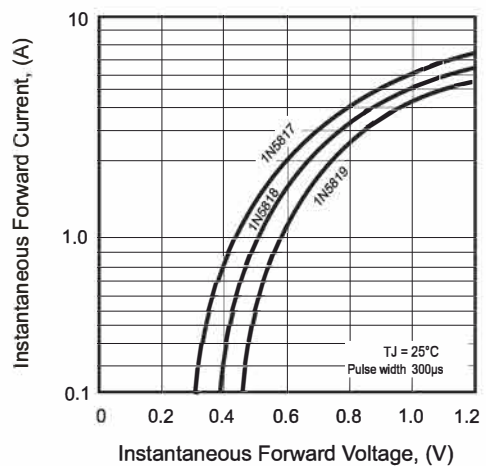


Fig.4 - Typical Forward Characteristics



Marking Code

Part Number	Marking code	Packaging
1N5817	1N5817	Ammo
1N5818	1N5818	Ammo
1N5819	1N5819	Ammo
1N5817T	1N5817	Reel
1N5818T	1N5818	Reel
1N5819T	1N5819	Reel
1N5817B	1N5817	Bulk
1N5818B	1N5818	Bulk
1N5819B	1N5819	Bulk



Note:

1) Suffix code after part number to specify packaging item .

XX = Product type marking code

Packaging	Code
AMMO PACK	NA
REEL PACK	T
BULK PACK	B

Standard Packaging

Case Type	AMMO PACK
	BOX (pcs)
DO-41	5,000

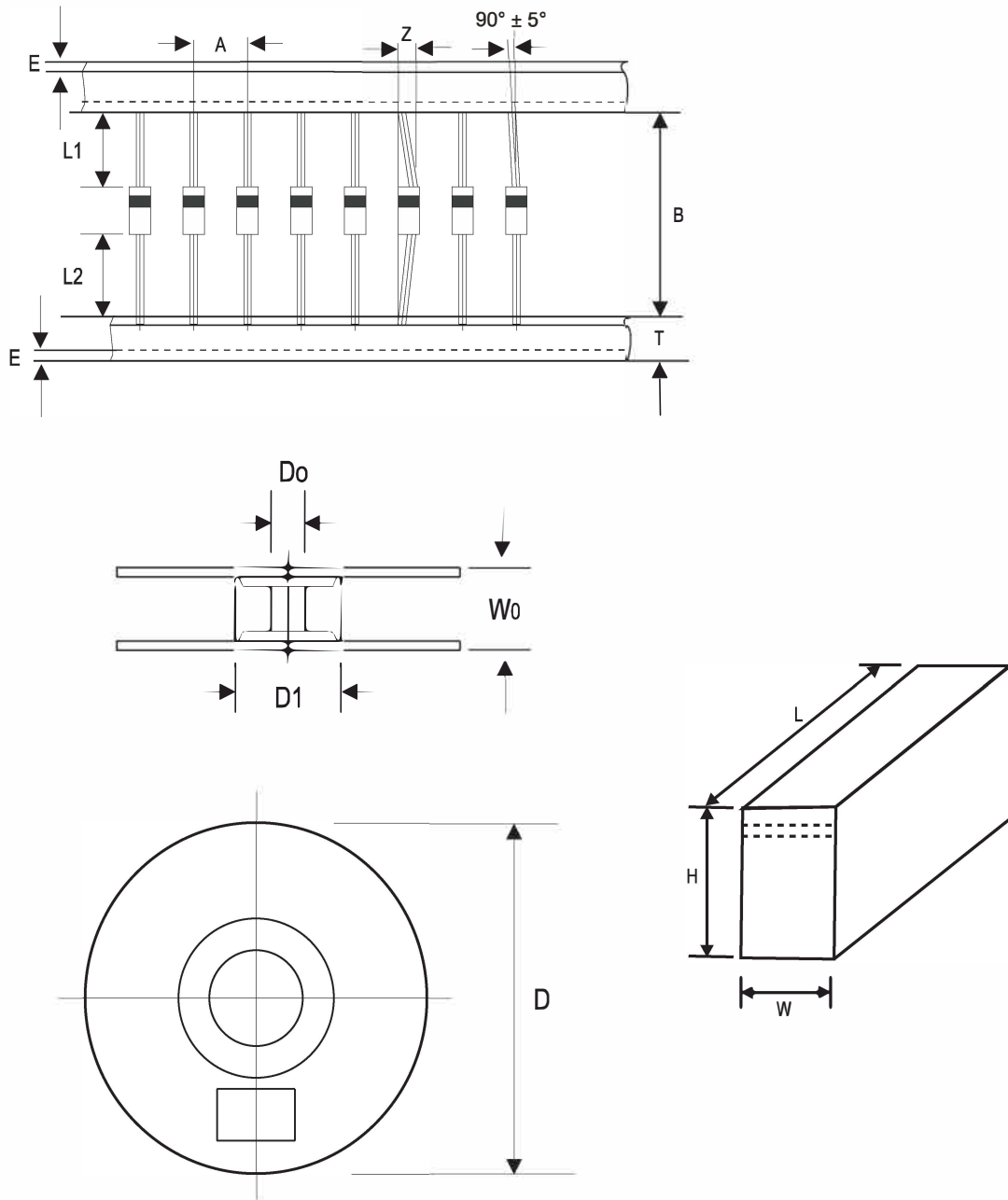
Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-41	5,000	13

Case Type	BULK PACK
	BOX (pcs)
DO-41	1,000

1N5817 THRU 1N5819



Taping Specification For Axial Lead Diodes



DO-41	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	5.00 ± 0.50	$52.40 + 1.50$ $- 0.40$	1.20 (max)	6.00 ± 0.40	0.80 (max)	1.00 (max)
	(inch)	0.197 ± 0.020	$2.063 + 0.059$ $- 0.016$	0.047 (max)	0.236 ± 0.016	0.031 (max)	0.039 (max)

DO-41	SYMBOL	D1	D0	D	W0	L	W	H
	(mm)	85.70 ± 0.30	16.60 ± 0.40	330.00	79.00 ± 1.00	255.00 ± 5.00	75.00 ± 5.00	150.00 ± 5.00
	(inch)	3.374 ± 0.012	0.654 ± 0.016	12.992	3.110 ± 0.039	10.039 ± 0.197	2.953 ± 0.197	5.906 ± 0.197

Company reserves the right to improve product design, functions and reliability without notice. Rev:1.0