

**CURRENT SENSE / LOW OHM  
SILICONE COATED TYPE**

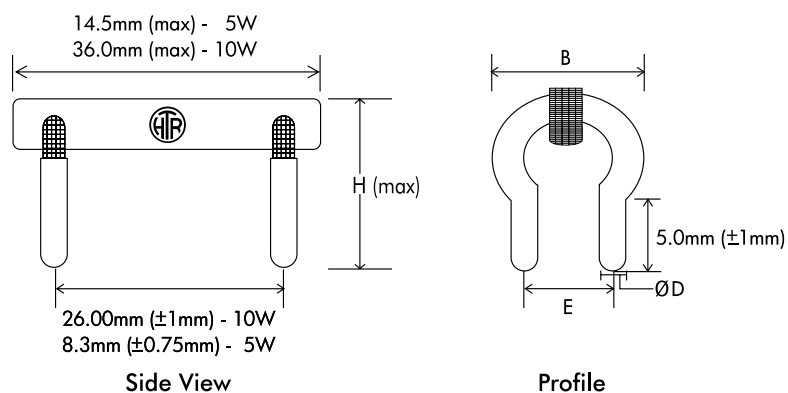
**OFSC**  
SERIES

**HI-POWER CURRENT SENSE RESISTOR**  
Four Terminal / Negligible Inductance

- 5W and 10W
- Resistance from R00012 to R003
- Flame Retardant Coating



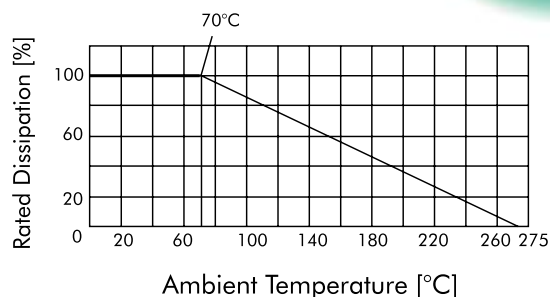
### PHYSICAL CONFIGURATION



HTR TYPE	POWER RATING at 70°C (AMBIENT)	DIMENSIONS (mm)				RESISTANCE VALUE	TYPICAL WEIGHT PER PC (gms)
		H (max)	ØD 0.15/-0.1	E ±0.5	B ±1.0		
OFSC-5-012	5W	15.5	2.1	4.5	12.0	R00012	4.8
OFSC-5-015	5W	15.5	2.1	4.5	12.0	R00015	4.8
OFSC-5-02	5W	15.5	2.1	4.5	12.0	R0002	3.8
OFSC-5-03	5W	15.5	2.1	4.5	12.0	R0003	3.5
OFSC-5-04	5W	13.0	1.6	3.1	9.6	R0004	2.2
OFSC-5-05	5W	13.0	1.6	3.1	9.6	R0005	2.0
OFSC-5-06	5W	13.0	1.6	3.1	9.6	R0006	1.7
OFSC-5-07	5W	13.0	1.6	3.1	9.6	R0007	1.6
OFSC-5-08	5W	13.0	1.6	3.1	9.6	R0008	1.5
OFSC-5-09	5W	13.0	1.6	3.1	9.6	R0009	1.5
OFSC-5-1	5W	13.0	1.6	3.1	9.6	R001	1.5
OFSC-5-2	5W	13.0	1.6	3.1	9.6	R002	1.4
OFSC-10-04	10W	16.0	2.1	6.4	11.5	R0004	9.8
OFSC-10-05	10W	16.0	2.1	6.4	11.5	R0005	8.0
OFSC-10-1	10W	16.0	2.1	6.4	11.5	R001	6.9
OFSC-10-125	10W	14.5	2.1	6.4	11.5	R00125	5.95
OFSC-10-15	10W	14.5	2.1	6.4	11.5	R0015	5.0
OFSC-10-16	10W	14.5	2.1	6.4	11.5	R0016	4.8
OFSC-10-2	10W	14.5	2.1	6.4	11.5	R002	4.2
OFSC-10-25	10W	14.5	2.1	6.4	11.5	R0025	4.2
OFSC-10-3	10W	14.5	2.1	6.4	11.5	R003	2.8

- **Current Rating** : Upto 160amps under certain conditions and diameter of terminals used (please check with factory for details).
- Due to availability of different resistance alloys, it is sometimes possible to offer these resistors with alternatives mounting pitches (please check with factory for details).

### DERATING CURVE



### ELECTRICAL & ENVIRONMENTAL CHARACTERISTICS / DATA

Parameter / Performance Test	Test Method / Condition	Performance Requirement
<b>Resistance Tolerance</b>	No : 303 of MIL 202 F	$\pm 5\%$ (J); $\pm 3\%$ (H); $\pm 2\%$ (G) $\pm 1\%$ (F) + 1.5%
<b>Power Rating</b>	Full power dissipation at upto 70°C and linearly derated down to zero dissipation at 275°C (see derating curve above)	5W/10W (70°C)
<b>Ambient Operating Temperature Range</b>	-55°C to +275°C	-55°C to +275°C (Suitably directed as per derating curve shown above)
<b>Voltage Rating / Limiting Voltage / Max Working Voltage</b>	$\sqrt{P \times R}$	5 W - Temperature on body / termination } $< 120^\circ\text{C} / 75^\circ\text{C}$ 10W - Temperature on body / termination } $< 220^\circ\text{C} / 90^\circ\text{C}$
<b>Short time Overload</b>	1) 10 x Power Rating for 5 secs 2) 5 x Power Rating for 5 secs	$\Delta R \pm < 0.75\%$ (typical) $\Delta R \pm < 0.35\%$ (typical)
<b>Inductance</b>		$< 10 \text{ nH}$
<b>Temperature Co-efficient Of Alloy Utilized</b>	No: 304 (20°C - 60°C) of MIL 202 F	$< R0002 < 200 \text{ ppm} / ^\circ\text{C}$ $> R0002 < 100 \text{ ppm} / ^\circ\text{C}$ } 5W $< R0005 < 200 \text{ ppm} / ^\circ\text{C}$ $> R0005 < 100 \text{ ppm} / ^\circ\text{C}$ } 10W
<b>Thermal Shock</b>	Limiting voltage applied until temperature stabilizes & then placed in cold temperature -55°C for 15 minutes	$\Delta R < 0.3\%$ (typical)
<b>Damp Heat (Steady State )</b>	No : 103 B of MIL 202 F and test condition "D"	$\Delta R < 0.5\%$
<b>Solderability</b>	No : 208 F of MIL 202 F	Continuous and Satisfactory
<b>Load Life</b>	No: 108 A of MIL 202 F	$\Delta R < 1.5\%$ (typical)

# OFSC

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## TYPICAL APPLICATIONS

The OFSC series offers a PCB mounted, non-inductive resistor having high stability / overload capacity. The unique 4 termination design serves the purpose of eliminating the inherent resistance of the leads. This makes the resistor highly accurate in current sensing operations. The resistor is finding widespread acceptance among inverter / UPS manufacturers.

## ORDERING INFORMATION

Series	RoHS Compliance	Type	Resistance Value	Tolerance
OFSC	*	OFSC-10-12	R00125	1.5%

1. For RoHS version - OFSC-10-12 \*