RUTTONSHA

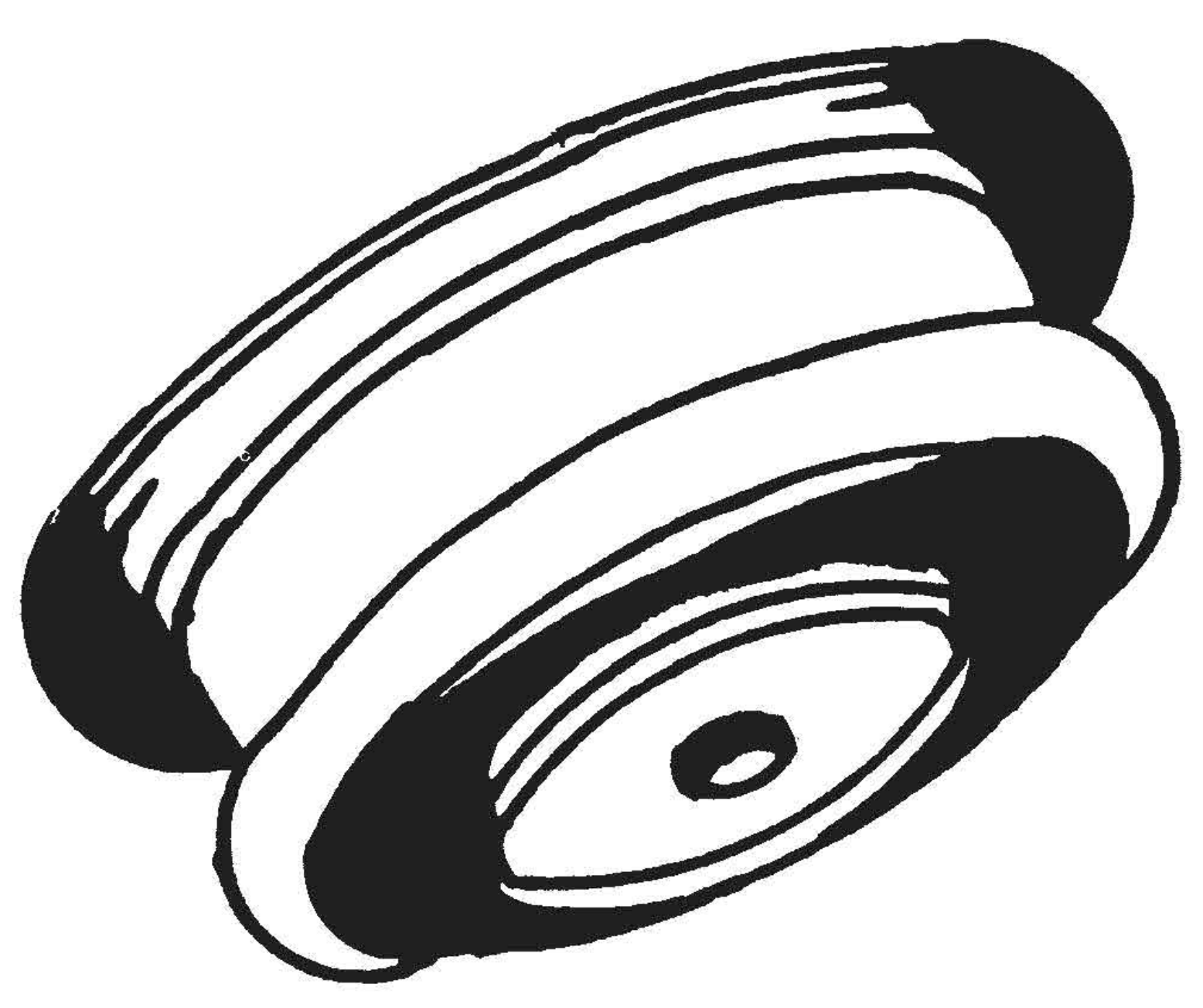
Ruttonsha International Rectifier Ltd.

SILICON RECTIFIERS

800 Ampere Silicon Power Diodes Type R 800 A

FEATURES

- *All diffused design.*
- *Low voltage drop.*
- *High surge current capability.*
- *Low thermal impedance.*



TYPE - R 800 A

VOLTAGE CODE	02	04	06	08	10	12	14	16
V_{RRM}	200	400	600	800	1000	1200	1400	1600
V_{RSM}	300	500	700	900	1100	1300	1500	1700

V_{RRM} = Repetitive peak voltage
V_{RSM} = Non-repetitive peak voltage

Ratings (Maximum values at 190°C T_j unless stated otherwise)

RATING	CONDITIONS	SYMBOL	
Average forward current	Half sine wave Ths = 55°C (double side cooled)	$I_{F(AV)}$	800A
RMS current	25°C heat sink temperature, double side cooled	$I_{F(RMS)}$	1256A
Peak one-cycle surge (non-repetitive)	10ms duration		8250A
Maximum permissible surge energy	For fusing ≥ 10ms	I^2t	340000A²s
Operating temperature range	Heatsink temperature	Ths	-40+190°C
Storage temperature		Tstg	-40+200°C

Characteristics (Maximum values at 190°C T_j unless stated otherwise)

CHARACTERISTIC	CONDITIONS	SYMBOL	
Peak forward voltage drop	At 1930 A, I_{FM}	V_{FM}	1.86V
Forward conduction threshold voltage	Tj=Tj max,	Vo	0.8V
Forward conduction slope resistance	Tj=Tj max,	r_o	0.55m Ω
Peak reverse current	At V_{RRM}	I_{RRM}	15mA
Thermal resistance junction to heatsink for a device with a maximum forward voltage drop	Double side cooled — 180° sine wave 120° rect. wave		0.090° C/W

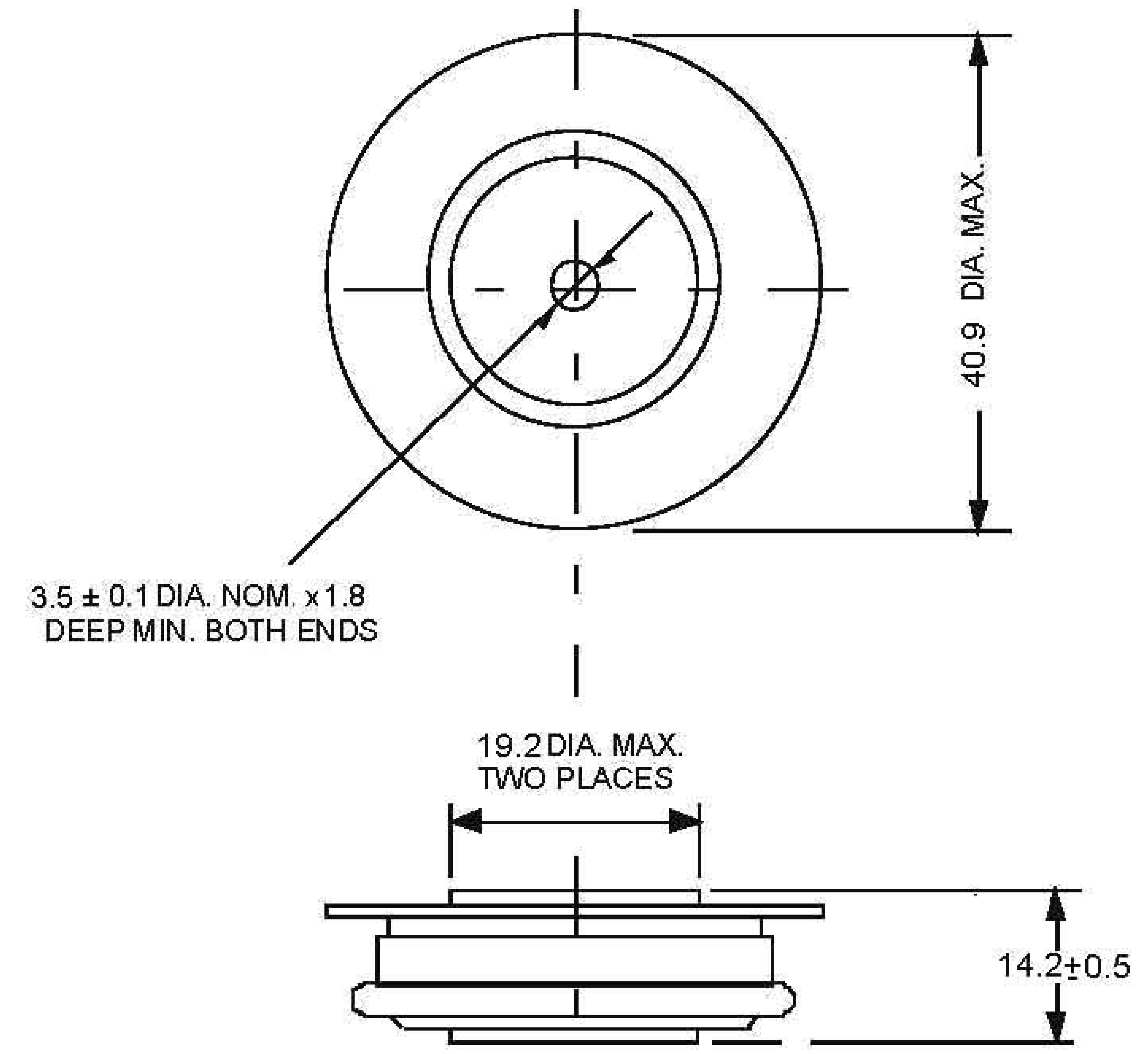
Ordering Information (please quote device code as explained below - 8 digits)

R 800 A	--	C	
5 Fixed digits	Voltage code	Capsule outline	Typical code : R 800A 12 C = 1200 $V_{RRM,}$ Capsule outline

SILICON RECTIFIERS

R800A... SERIES

Outline Table



Case Style DO-200AA

All dimensions in millimeters

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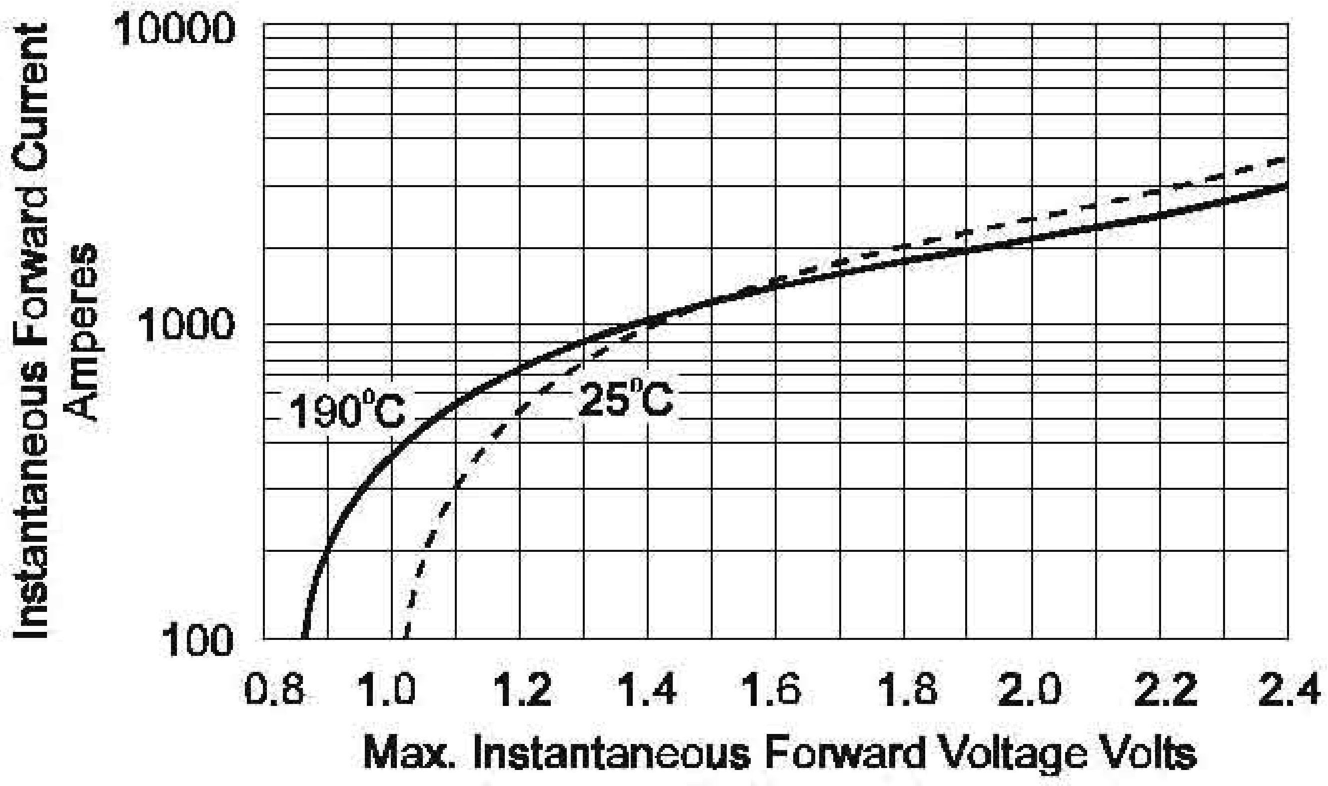
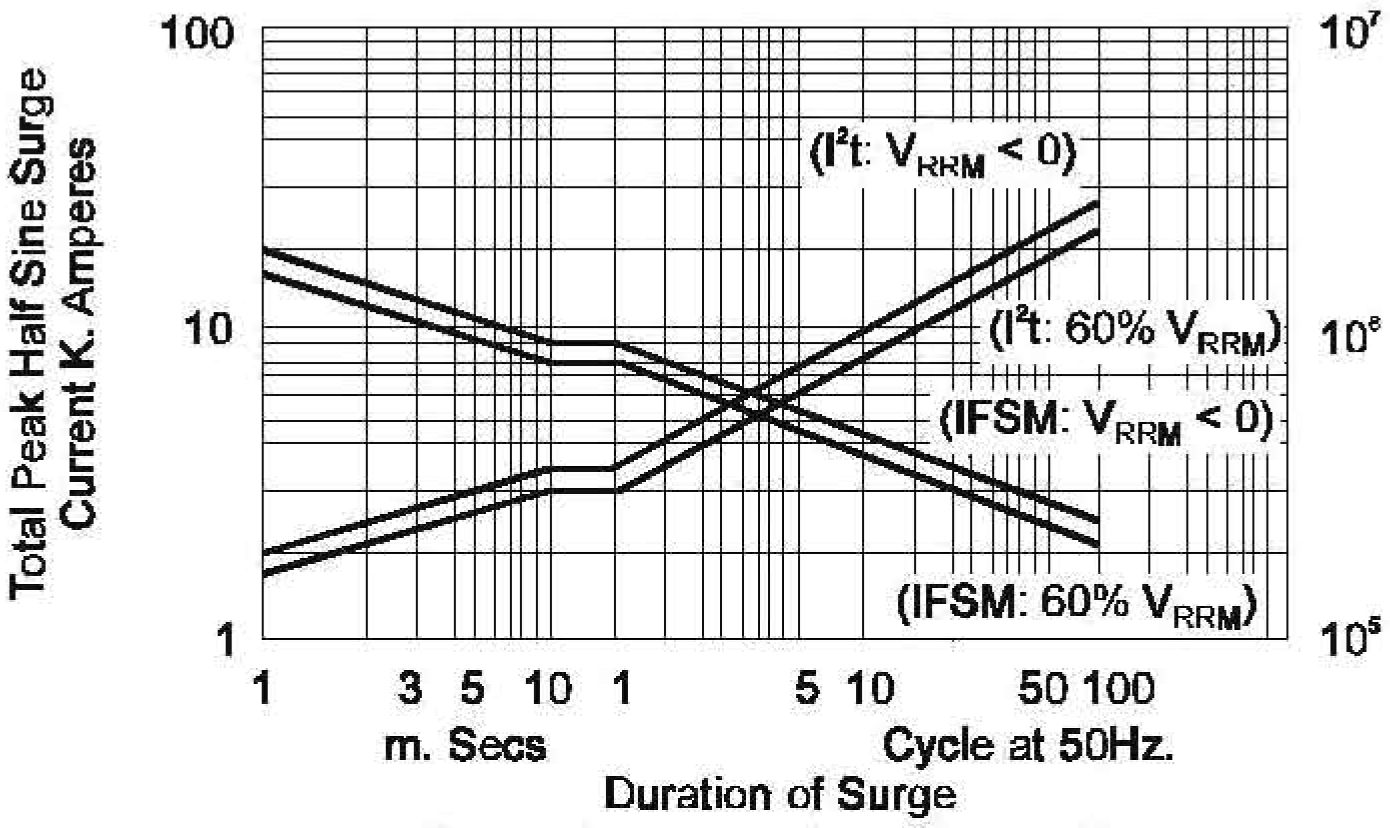
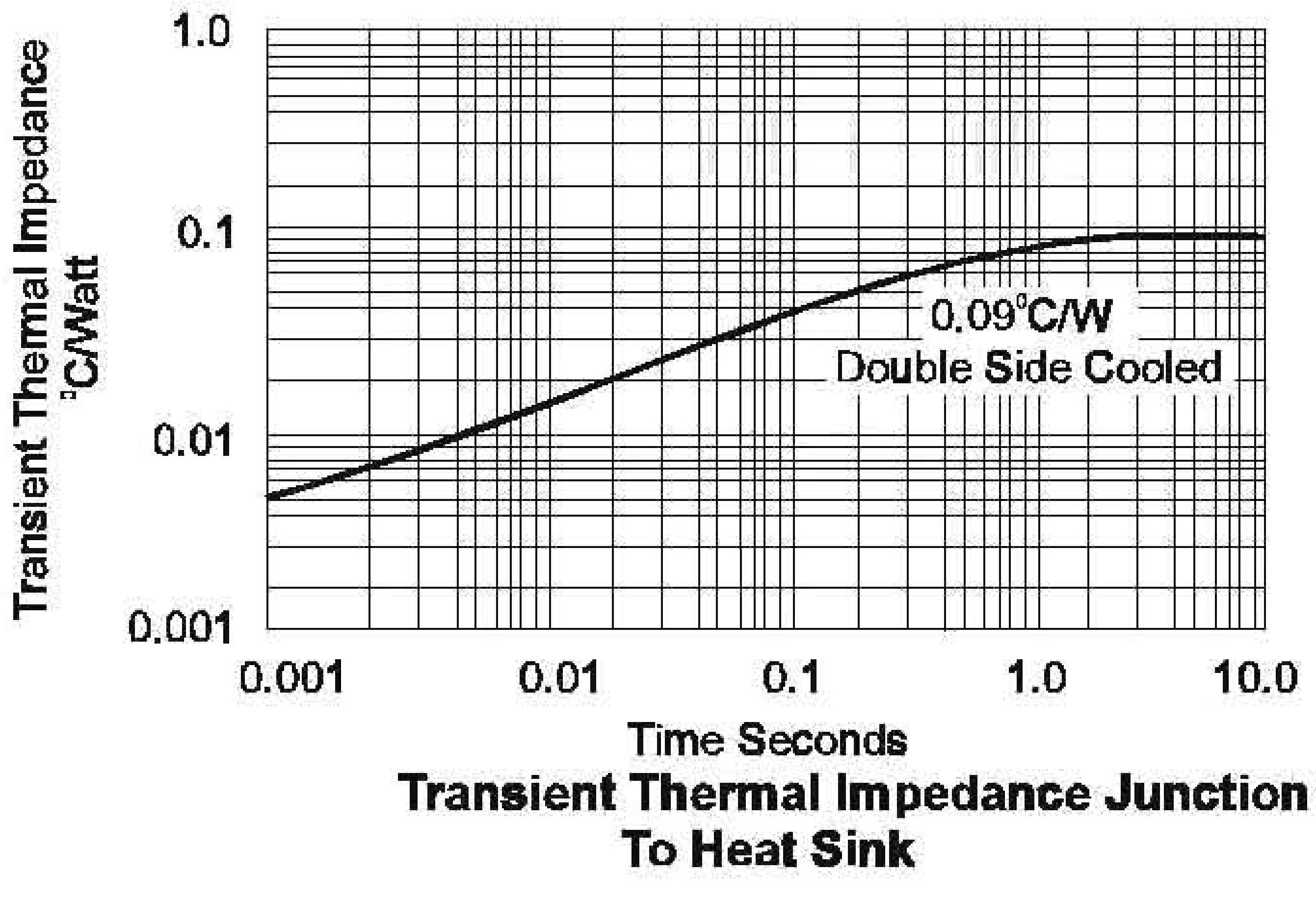
R 800 A



Forward Voltage Characteristics



Max. Non Repetitive Surge Current at Initial Junction Temperature 180°C



Transient Thermal Impedance Junction To Heat Sink