



Features

- Average Forward Current: $I_{F(AV)}=3A$
- Polarity: Color band denotes cathode

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
HRS3MB13F	SMB	RS3M	3000



SMB



Maxmim Ratings (Ta=25 unless otherwise noted)

Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Type Number	HRS3M13F	Units
Maximum Recurrent Peak Reverse Voltage	1000	V
Maximum RMS Voltage	700	V
Maximum DC Blocking Voltage	1000	
Maximum Average Forward Rectified Current At $T_L=75^{\circ}C$	3.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	50	A
Maximum Instantaneous Forward Voltage at 3.0A	1.3	V
Maximum DC Reverse Current $T_a=25^{\circ}C$	5.0	μA
at Rated DC Blocking Voltage $T_a=125^{\circ}C$	50	μA
Typical Junction Capacitance (Note2)	15	pF
Maximum reverse recovery time (Note 1)	500	ns
Typical Thermal Resistance RqJL (Note 3)	88	$^{\circ}C/W$
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +150	$^{\circ}C$

Notes:

- 1.Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
- 2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
- 3.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas



Typical Characteristics

FIG. 1- FORWARD CURRENT DERATING CURVE

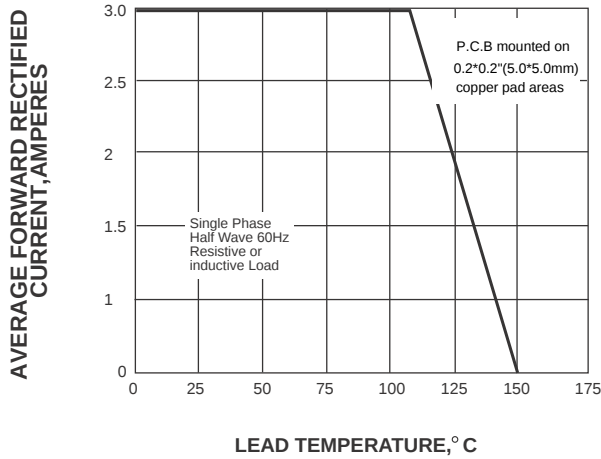


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

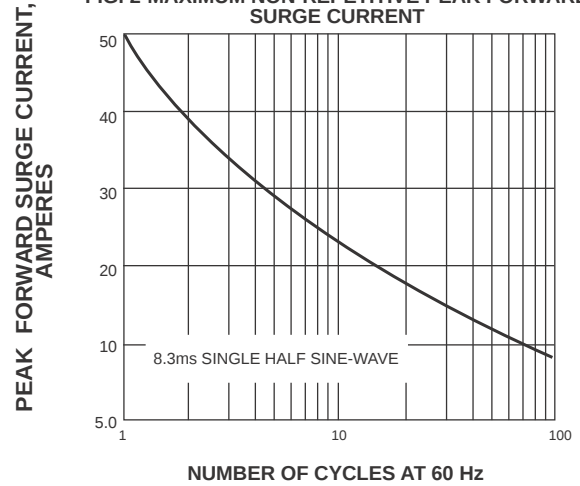


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

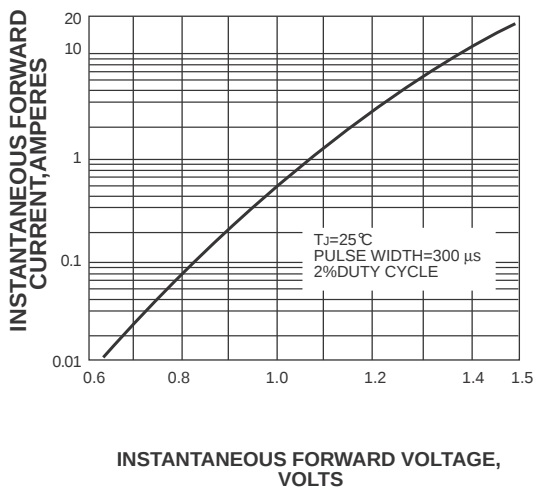


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

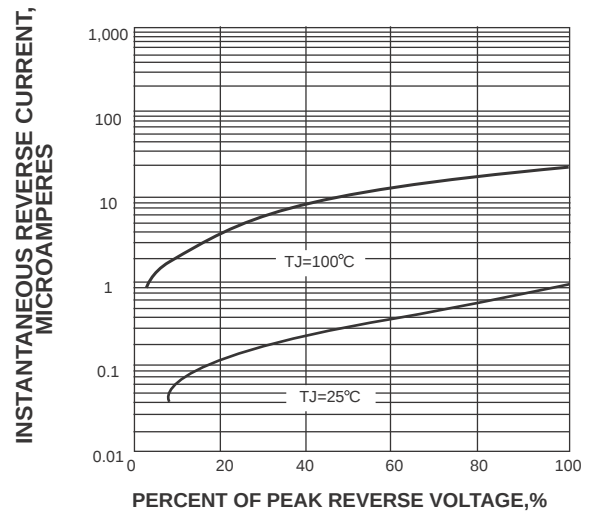


FIG. 5-TYPICAL JUNCTION CAPACITANCE

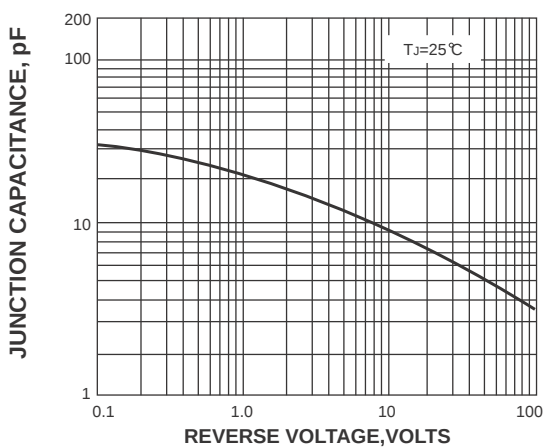
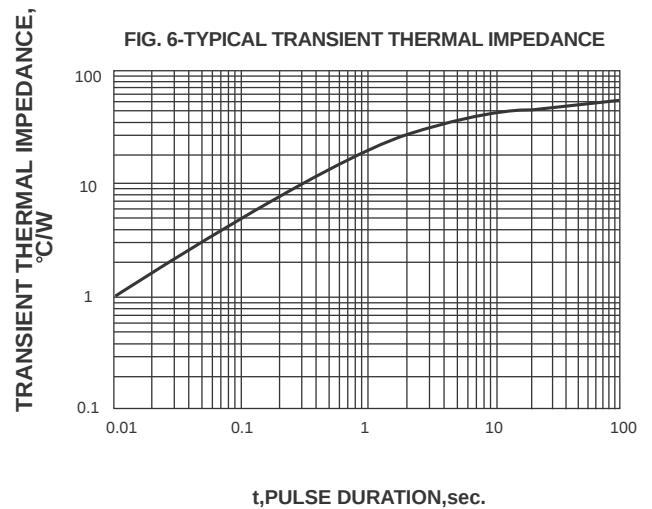


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE





SMB Package Outline Dimensions



Dimensions in inches and (millimeters)



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