康 比 電 子
HORNBY ELECTRONIC

M7

SURFACE MOUNT GLASS PASSIVATED SILICON RECTIFIER

产品规格确认书

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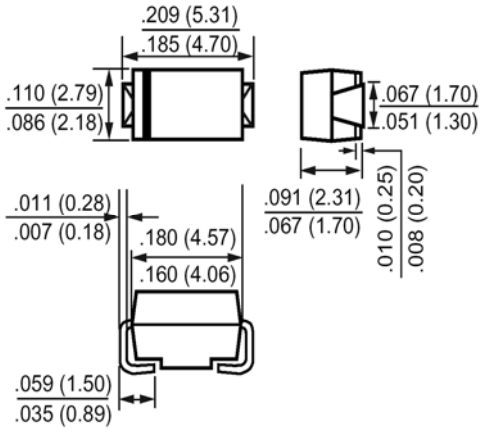
REVERSE VOLTAGE: **1000 VOLTS**
FORWARD CURRENT: **1.0 AMPERE**

FEATURES

· Plastic package has Underwriters Laboratory Flammability Classification 94V-O
· For surface mounted applications
· Low profile package
· Easy pick and place
· Built-in strain relief
· Low forward voltage drop
· High temperature soldering : 250°C /10 seconds at terminals

SMX



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, SMX
Terminals: Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
Polarity: Color band denotes cathode end
Packaging: 12mm tape per EIA STD RS-481
Weight: 0.002 ounce, 0.064 gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	*M7*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	**Volts**
Maximum RMS Voltage	V_{RMS}	700	**Volts**
Maximum DC Blocking Voltage	V_{DC}	1000	**Volts**
Maximum Average Forward Rectified Current at T_L=75℃	$I_{(AV)}$	1.0	**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30	**Amp**
Maximum Forward Voltage at 1.0A	V_F	1.1	**Volts**
Maximum Reverse Current at T_A=25℃	I_R	5.0	**μAmp**
at Rated DC Blocking Voltage T_A=125℃		100	
Typical Junction Capacitance (Note 1)	C_J	12	**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	28	**℃/W**
Maximum Reverse Recovery Time (Note 3)	T_{RR}	2.5	**μS**
Operating Junction Temperature Range	T_J	-55 to +150	**℃**
Storage Temperature Range	Tstg	-55 to +150	**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Thermal resistance from junction to ambient mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

3- Reverse Recovery Test Conditions：I_F=.5A，I_R=1A，I_{RR}=.25A.

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RATINGS AND CHARACTERISTIC CURVES

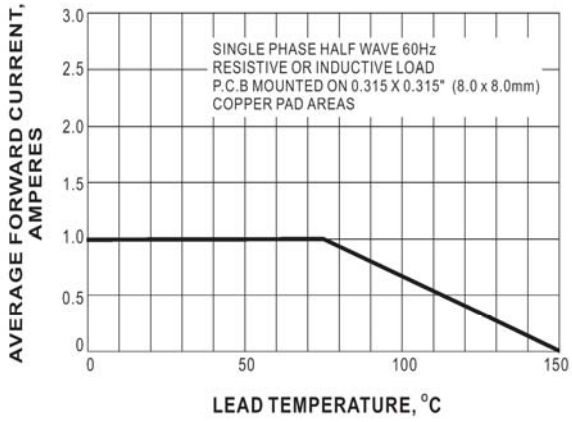

Fig.1-FORWARD CURRENT DERATING CURVE

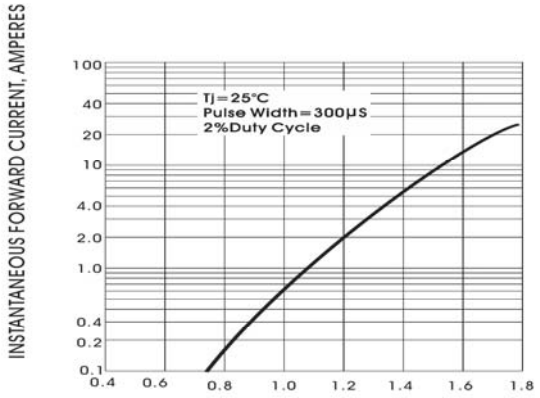

Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISITCS PER ELEMENT

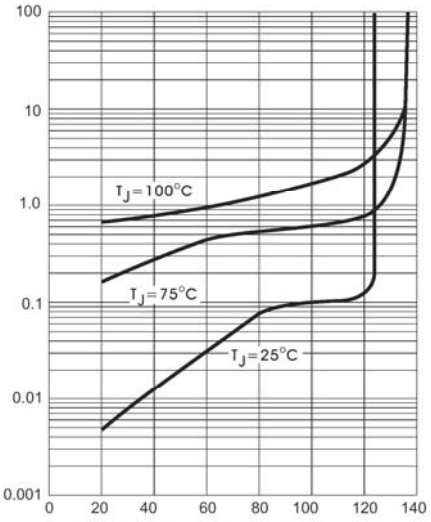

Fig. 3- TYPICAL REAK REVERSE CHARACTERISTICS

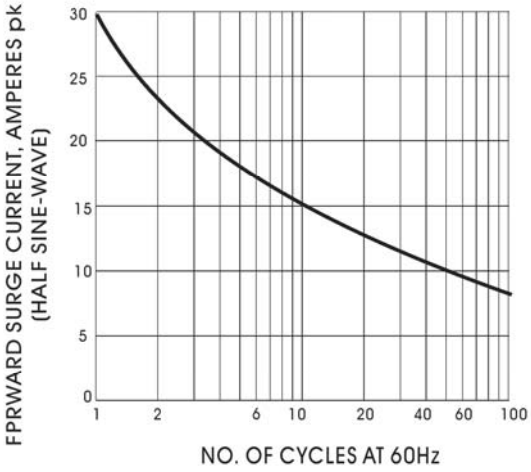

Fig. 4- MAXIMUM NON-REPETITEVE PEAK FORWARD SURGE CURRENT

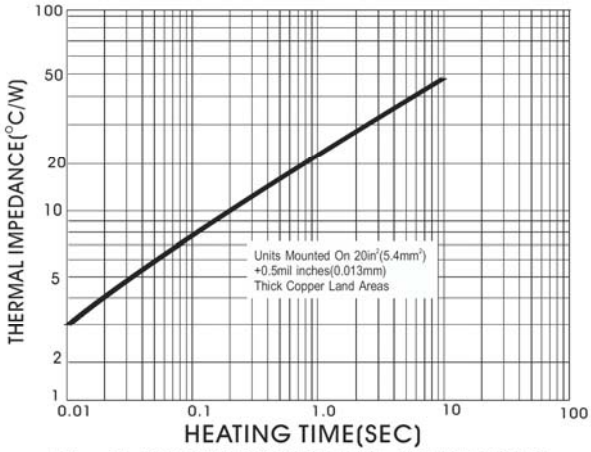

Fig. 5- TRANSIENT THERMAL IMPEDANCE

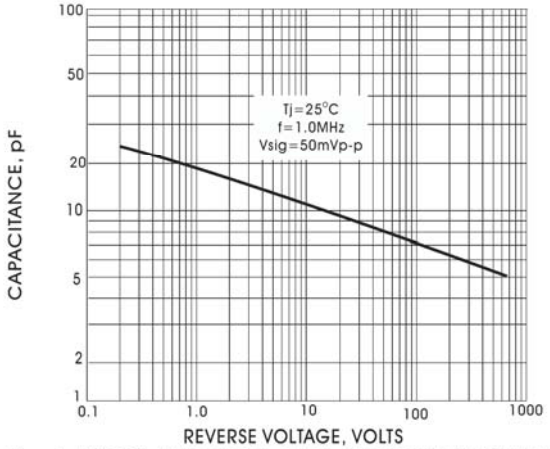

Fig. 6- TYPICL JUNCTION CAPACITANCE PER ELEMENT