Suntan_® Su_®

M1 THRU M7

SURFACE MOUNT GENERAL RECTIFIER REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 1.0 Ampere

FEATURES

 \blacklozenge The plastic package carries Underwriters Laboratory

Flammability Classification 94V-0.

- ◆For surface mounted applications.
- ◆Low reverse leakage.
- ♦ Built-in strain relief, ideal for automated placement.
- ♦ High forward surge current capability.
- ♦ High temperature soldering guaranteed:

250°C/10 seconds at terminals.

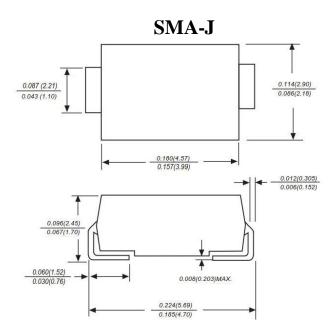
Mechanical Data

◆Case: JEDEC SMA-J molded plastic body.

◆ Terminals: Solder plated, solderable per

MIL-STD-750, Method 2026.

- ◆ Polarity: Color band denotes cathode end.
- ♦ Mounting Position: Any.



Dimensions in inches and (millimeters)

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%

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	SYMBOL	M1	M2	M3	M4	M5	M6	M7	UNIT
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_L=55^{\circ}\mathbb{C}$	I(AV)	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	Ifsm	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V _F	1.1							Volts
Maximum DC Reverse Current $T_A=25^{\circ}C$ at Rated DC Blocking voltage $T_A=100^{\circ}C$	Ir	5.0 50.0							uA
Typical junction capacitance (NOTE 1)	C _J	15.0							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	75.0							°C/W
Operating junction and storage temperature range	T _J ,Tstg	-55 to +150							°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

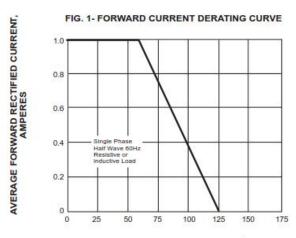
2. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

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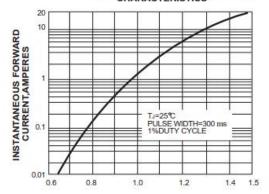
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RATING AND CHARACTERISTIC CURVES M1 THRU M7



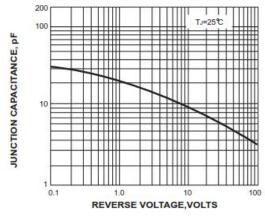
AMBIENT TEMPERATURE,°C





INSTANTANEOUS FORWARD VOLEAGE, VOLTS





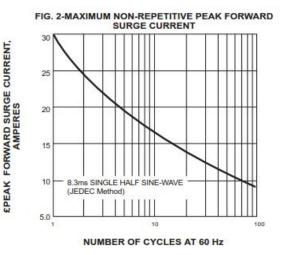


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

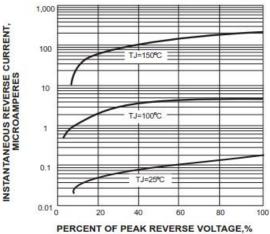
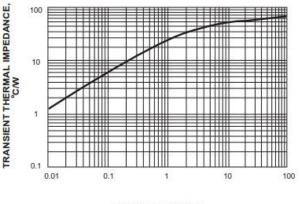


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t.PULSE DURATION.sec.

Tel: (852) 8202 8782

Note: Specifications are subject to change without notice. For more detail and update, please visit our website.

Suntan® Technology Company Limited