

Silicon Rectifier SMD Plastic Type

M1 to M7

MERITEK

FEATURES

- Surge Overload rating: 30 amperes peak
- Forward Current: 1.0A
- Reverse Voltage: 50~1000V
- Plastic package has UL Flammability Classification 94V-0
- Glass Passivated Die Construction
- Low profile package
- Low forward voltage drop
- Terminals: Plated leads solderable per MIL-STD-750



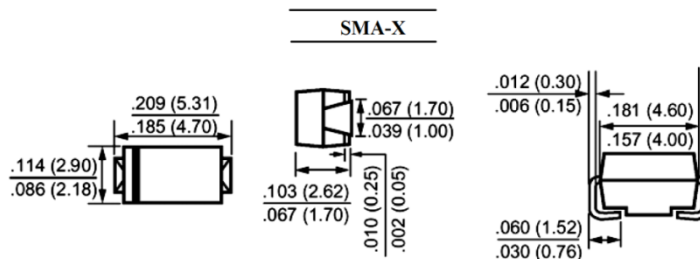
ELECTRICAL CHARACTERISTICS

Parameter	Symbol	M1	M2	M3	M4	M5	M6	M7	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current at $T_L=75^{\circ}C$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							
Maximum Forward Voltage at 1.0A	V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage $T_A=25^{\circ}C$	I_R	5.0							μA
Maximum Reverse Current at Rated DC Blocking Voltage $T_A=125^{\circ}C$	I_R	100							
Typical Junction Capacitance (Note 1)	C_J	12							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	30							$^{\circ}C/W$
Maximum Reverse Recovery Time (Note 3)	T_{RR}	2.5							μs
Operating Junction Temperature Range	T_J	-65~+150							$^{\circ}C$
Storage Temperature Range	T_{stg}	-65~+150							$^{\circ}C$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal resistance from junction to ambient mounted on P.C.B. with 0.315 x 0.315" (8.0 x 8.0mm) copper pad areas
3. Reverse Recovery Test Conditions : $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$.
4. Ratings at 25 $^{\circ}C$ ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

SMA-X DIMENSIONS



Dimensions in inches and (mm)

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CHARACTERISTIC CURVES

