M1F THRU M7F

Surface Mount Glass Passivated Rectifier

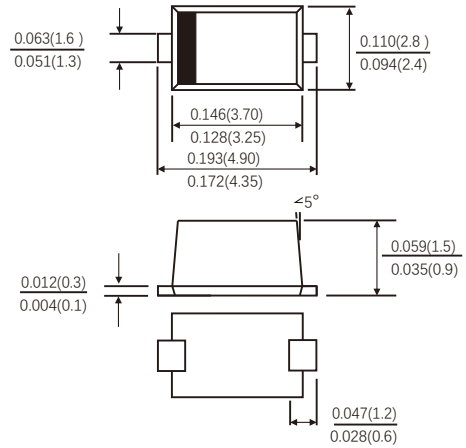
Reverse Voltage - 50 to 1000 Volts
Forward Current -1.0Ampere

SEMICONDUCTOR

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low reverse leakage
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

SMAF



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: SMAF molded plastic over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave 60Hz,,resistive or inductive load. For capacitive load, derate by 20%.)

Parameters		Symbols	M1F	M2F	M3F	M4F	M5F	M6F	M7F	Units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	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		$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A		V_F	1.1							Volts
Maximum Reverse current at rated DC Blocking Voltage	T_A=25°C	I_R	5.0							μA
	T_A=125°C		100							
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	75							°C/W
		$R_{\theta JL}$	27							
Typical Junction Capacitance(Note 1)		C_J	8.0							pF
Operating and Storage temperature Range		T_J,T_{STG}	-55 to+150							°C

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

2.Thermal resistance from junction to ambient , P.C.B. Mounted with 0.2×0.2"(5.0×5.0mm)copper pad areas

FIG.1-FORWARD CURRENT DERATING CURVE

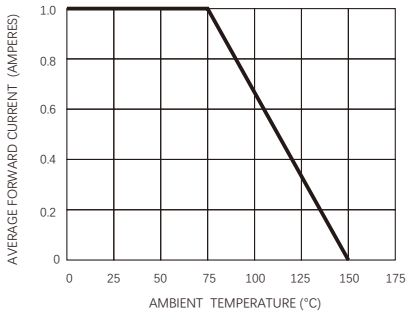


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

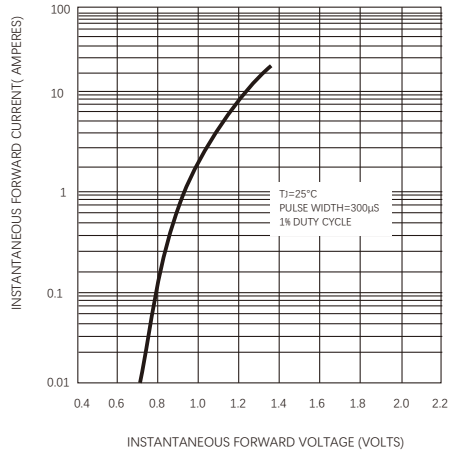


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

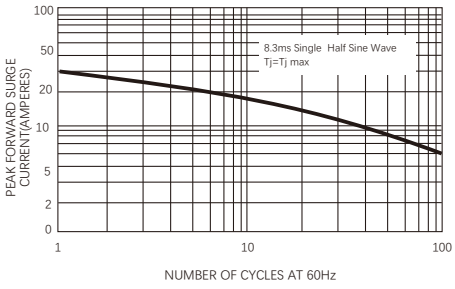


FIG.4-TYPICAL REVERSE CHARACTERISTICS

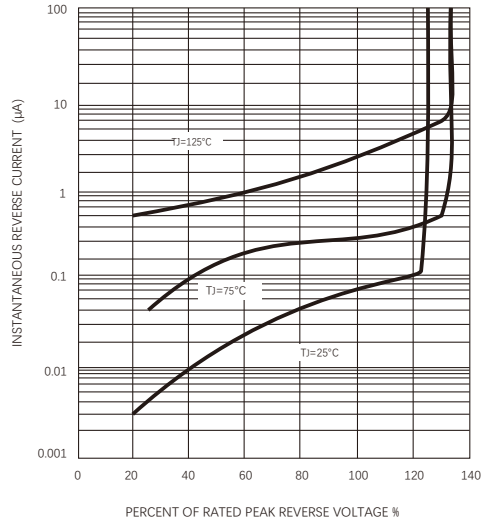
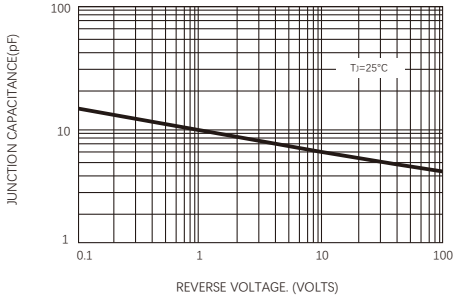


FIG.5-TYPICAL JUNCTION CAPACITANCE



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