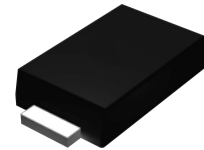


Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- Glass passivated junction
- Low forward voltage drop
- High current capability, high reliability
- Low power loss, high efficiency
- High surge current capability
- High speed switching, low leakage
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



SMAF

Mechanical Data

- Case: SMAF molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end



RoHS
COMPLIANT

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%.)

Parameter	Symbols	Value	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	2.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50	A
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_J=25^{\circ}C$	5.0
		$T_J=125^{\circ}C$	100
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	75	$^{\circ}C/W$
Typical Thermal Resistance, Junction to Lead	$R_{\theta JL}$	27	$^{\circ}C/W$
Maximum Reverse Recovery Time ¹	T_{rr}	75	nS
Typical Junction Capacitance ²	C_J	11	pF
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}C$

Notes:

1. Test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$.
2. Measured at 1MHZ and applied reverse voltage of 4.0 Volts.

Ratings and Characteristics Curves

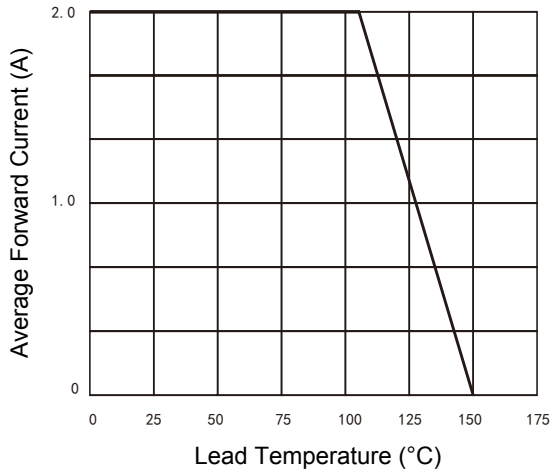


Figure 1. Typical Forward Current Derating Curve

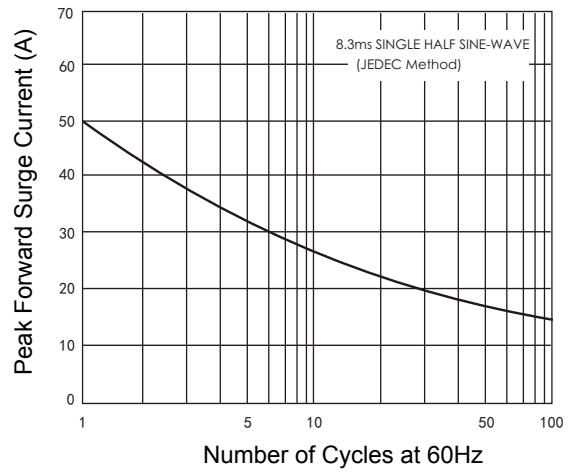


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

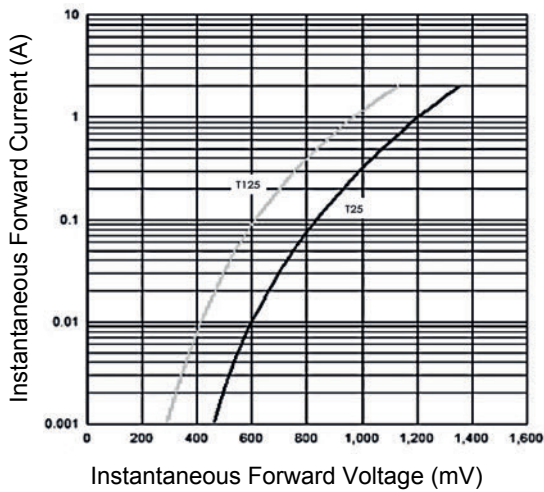


Figure 3. Typical Instantaneous Forward Characteristics

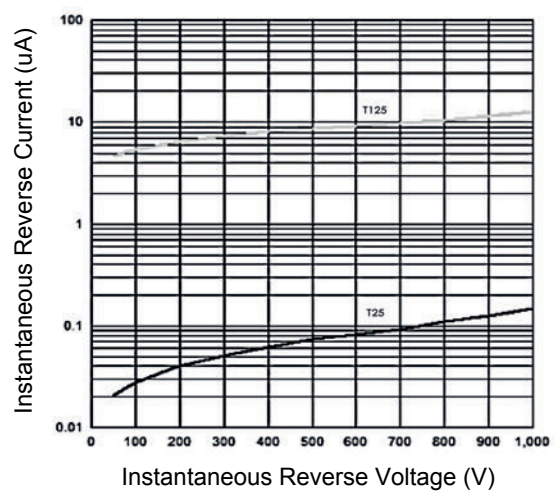


Figure 4. Typical Reverse Characteristics

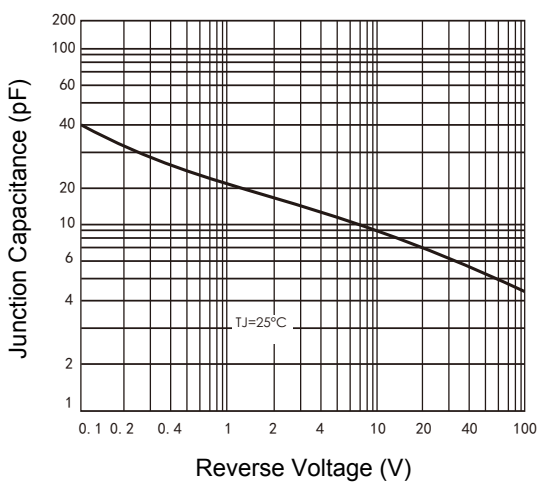
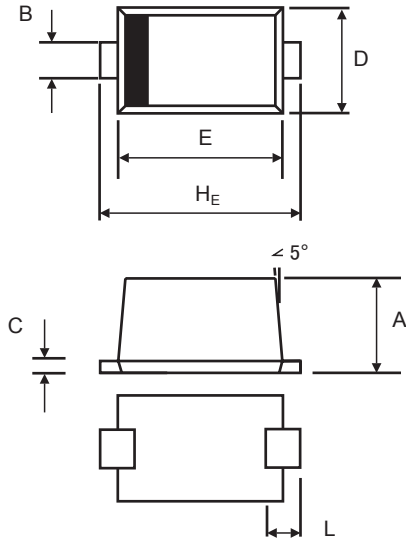


Figure 5. Typical Junction Capacitance

Package Outline Dimensions (SMAF)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.90	1.50	0.035	0.059
B	1.30	1.60	0.051	0.063
C	0.10	0.30	0.004	0.012
D	2.40	2.80	0.094	0.110
E	3.25	3.70	0.128	0.146
HE	4.35	4.90	0.171	0.193
L	0.60	1.20	0.024	0.047

Order Information

Device	Package	Marking	Carrier	Quantity
GSUS2MS	SMAF	US2MS	Tape & Reel	3,000pcs / Reel