

**FEATURES**

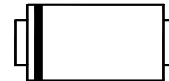
- Glass Passivated Die Construction
- Low reverse leakage
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automated Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0



SMAF

**MECHANICAL DATA**

- Case: SMAF Molded plastic
- Terminals: Pure tin plated, lead free
- Polarity: Indicated by cathode band
- Weight: 27mg (approx.)



Cathode

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

Parameter	Symbol	RS2AF	RS2BF	RS2DF	RS2GF	RS2JF	RS2KF	RS2MF	Unit	
Maximum Repetitive 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	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current at $T_A = 75\text{ }^\circ\text{C}$	$I_{F(AV)}$	2.0							A	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC)	$I_{FSM}$	50.0							A	
Maximum Instantaneous Forward Voltage at 2 A	$V_F$	1.3							V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A = 25\text{ }^\circ\text{C}$							5.0	$\mu\text{A}$
		$T_A = 100\text{ }^\circ\text{C}$							50.0	
Maximum reverse recovery time (NOTE1)	$t_{rr}$	150				250	500		nS	
Typical Junction Capacitance (NOTE2)	$C_J$	50.0							pF	
Maximum Thermal Resistance (NOTE3)	$R_{\theta JA}$	20.0							$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	$T_{J, TS}$	- 50 to + 150							$^\circ\text{C}$	

Note: 1.Reverse recovery condition  $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$

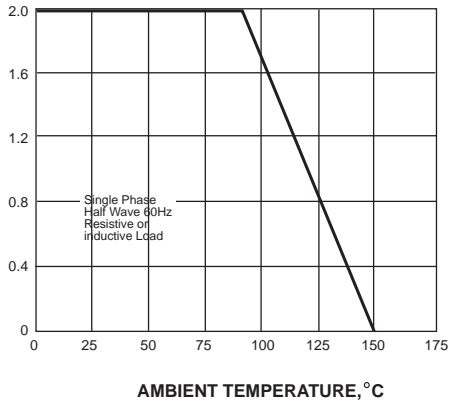
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

**Typical Characteristics**

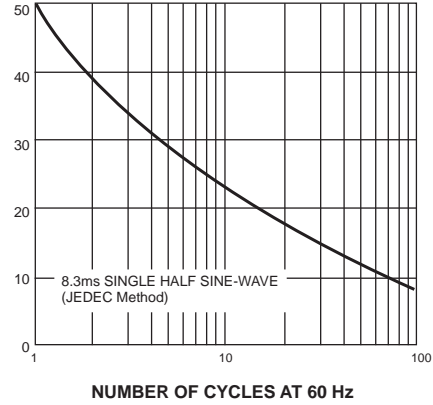
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

**FIG. 1- FORWARD CURRENT DERATING CURVE**



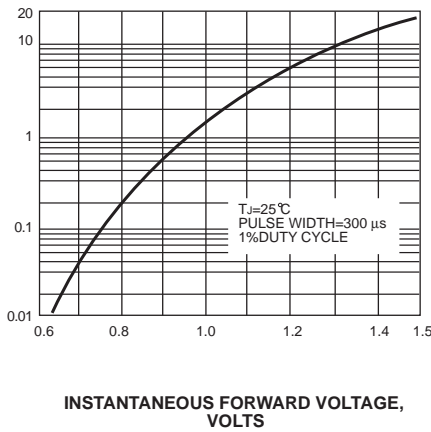
PEAK FORWARD SURGE CURRENT, AMPERES

**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



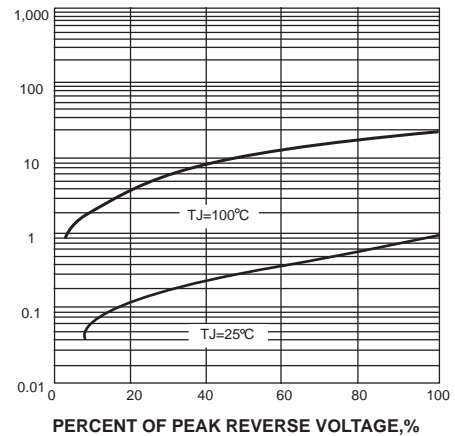
INSTANTANEOUS FORWARD CURRENT, AMPERES

**FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



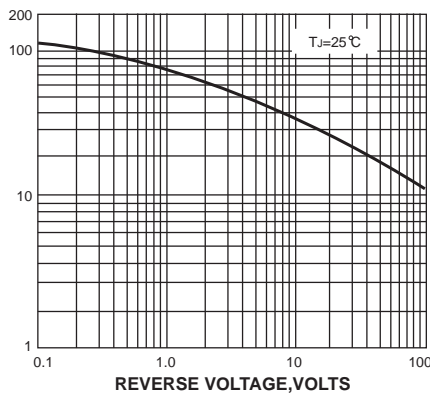
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

**FIG. 4-TYPICAL REVERSE CHARACTERISTICS**



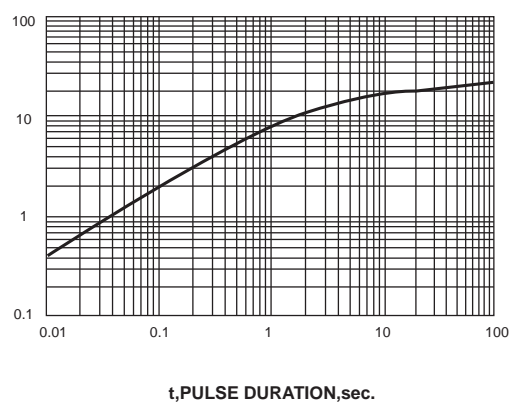
JUNCTION CAPACITANCE, pF

**FIG. 5-TYPICAL JUNCTION CAPACITANCE**

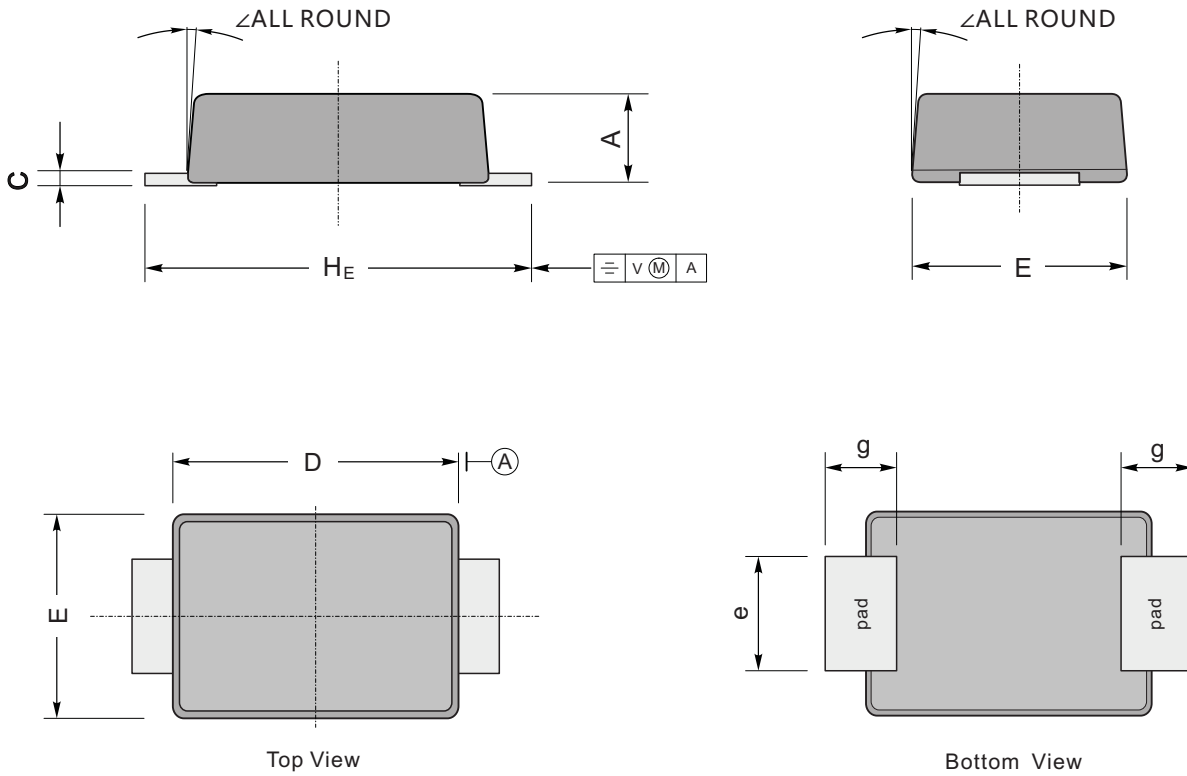


TRANSIENT THERMAL IMPEDANCE, °C/W

**FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE**



**SMAF Package Outline Dimensions**



UNIT		A	C	D	E	e	g	$H_E$	$\angle$
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	