

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

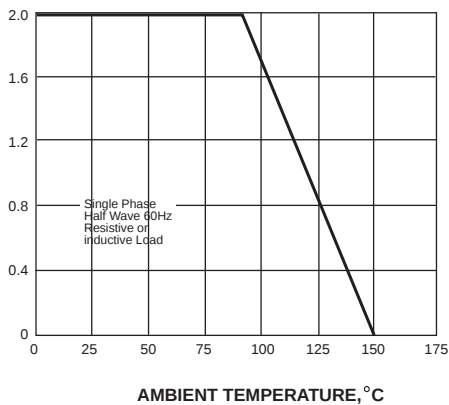
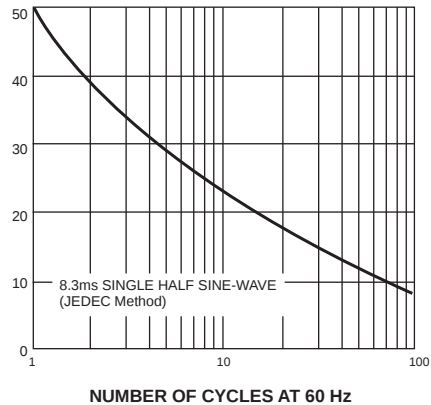
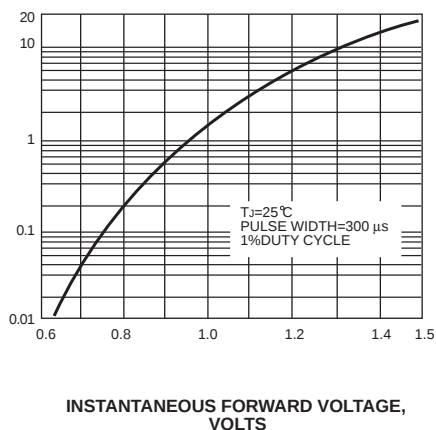
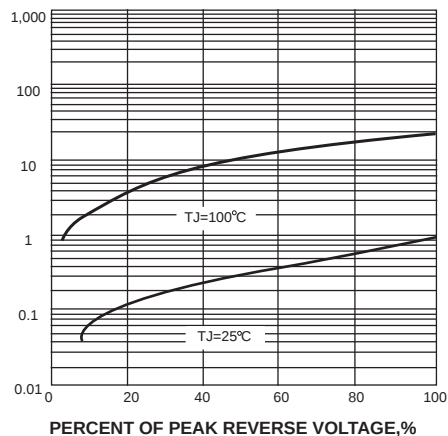
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

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 °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	T _A = 25 °C T _A =100 °C	I _R	5.0 50.0							μA
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 _{θJA}	20.0							°C/W	
Operating and Storage Temperature Range	T _{J, TS}	- 50 to + 150							°C	

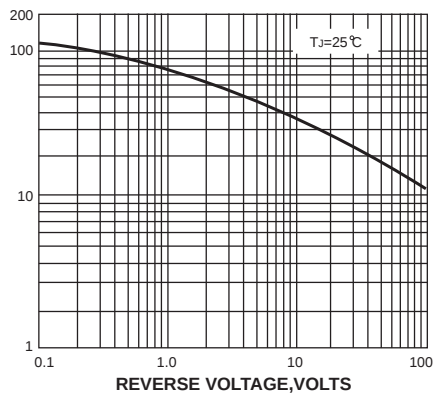
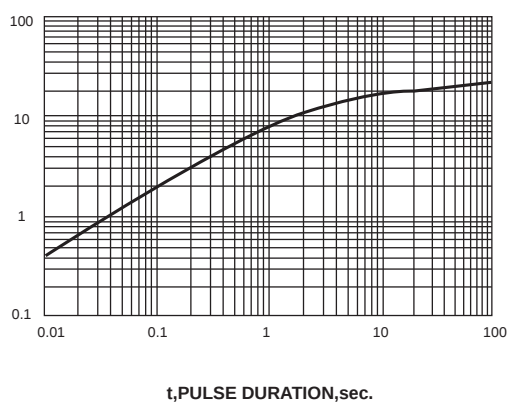
Note: 1.Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$

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

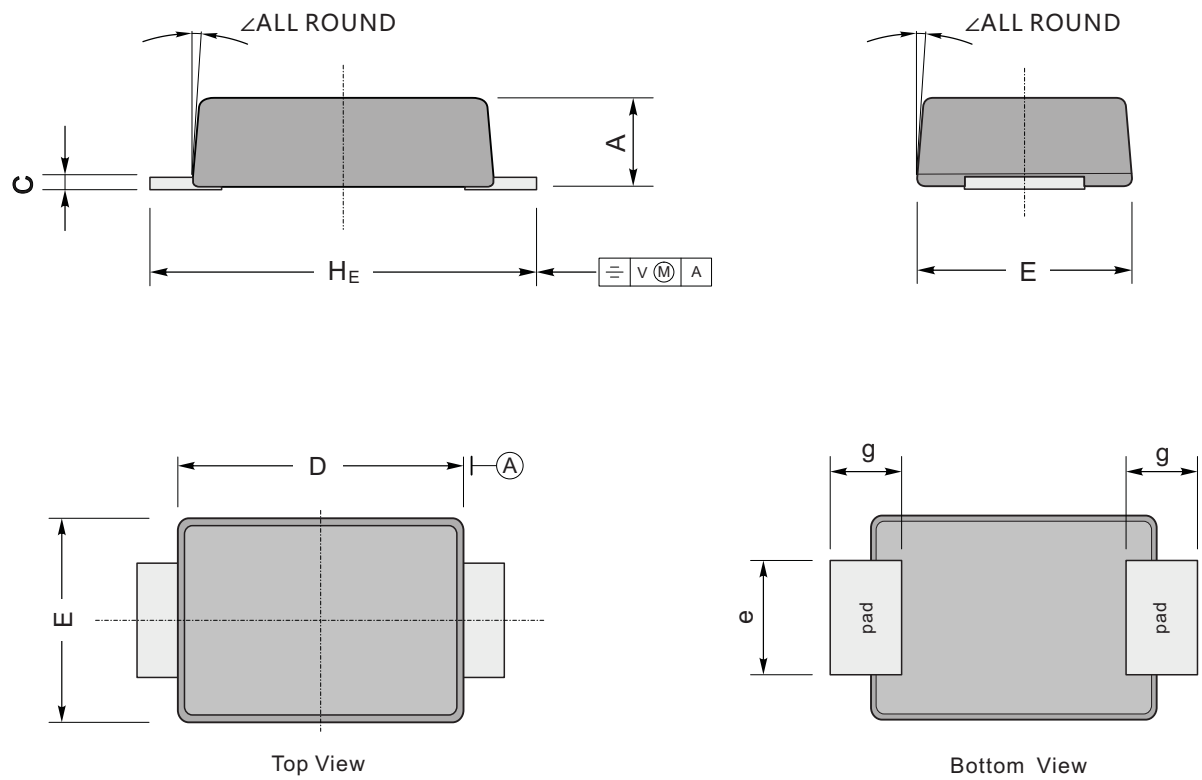
3.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

Typical CharacteristicsAVERAGE 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 CAPACITANCETRANSIENT 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	