

SURFACE MOUNT GENERAL RECTIFIER

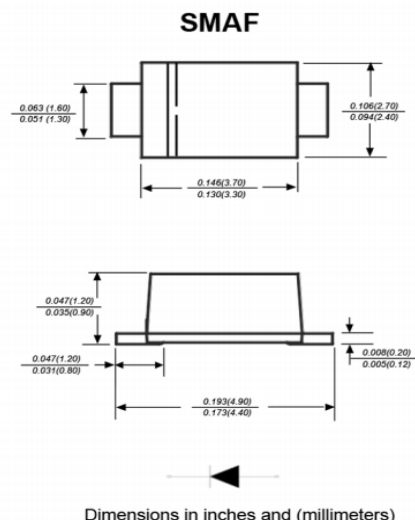
Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

Features

1. The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
2. Idea for printed circuit board
3. Open Junction chip
4. Low reverse leakage
5. High forward surge current capability
6. High temperature soldering guaranteed
250°C/10 seconds at terminals

Mechanical Data

Case : SMAF molded plastic body
 Terminals : Solderable per MIL-STD-750, Method 2026
 Polarity : Polarity symbol marking on body
 Mounting Position : Any
 Weight : 0.0018 ounce, 0.064grams



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 current derate by 20%.

Parameter	SYMBOLS	S3AF	S3BF	S3DF	S3GF	S3JF	S3KF	S3MF	UNITS
Marking Code		S3A	S3B	S3D	S3G	S3J	S3K	S3M	
Maximum repetitive peak reverse voltage	V_{RMM}	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 $T_L=75^\circ\text{C}$	$I_{(AV)}$	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100							A
Maximum instantaneous forward voltage at 3.0A	V_F	1.20							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	5.0 250							μA
Typical junction capacitance (NOTE 1)	C_J	53.0							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	47.0							$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

Typical Characteristics

Fig.1 Forward Current Derating Curve

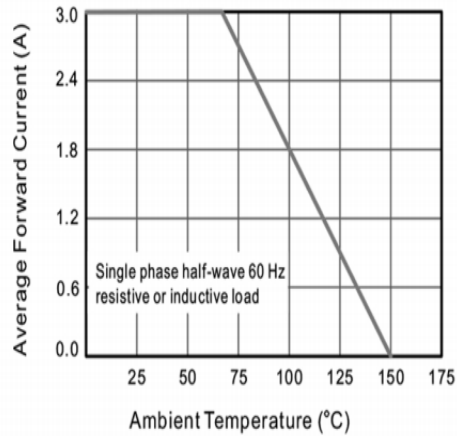


Fig.2 Typical Instantaneous Reverse Characteristics

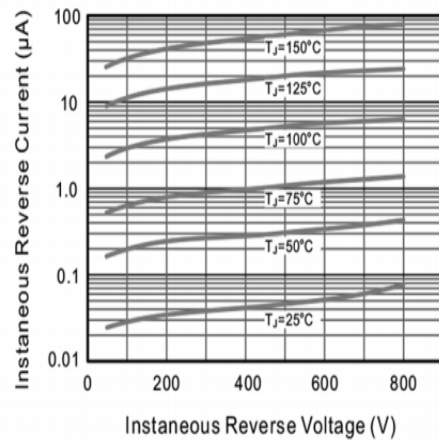


Fig.3 Typical Forward Characteristic

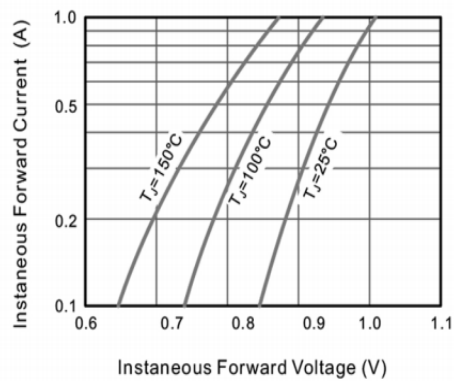


Fig.4 Typical Junction Capacitance

