

S2AF THRU S2MF

Surface Mount General Rectifiers

Reverse Voltage - 50 to 1000 V

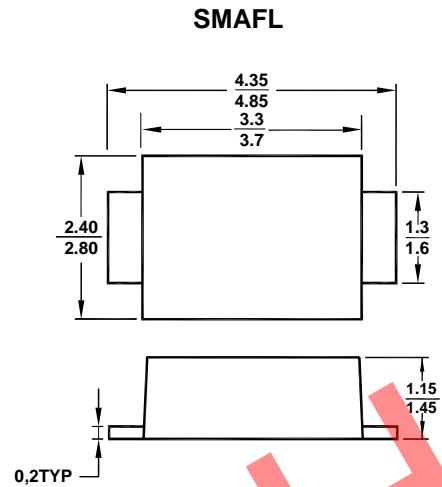
Forward Current - 2 A

Features

- Low profile package
- For surface mounted applications
- High current capability
- Built-in strain relief, ideal for automated placement
- Plastic package has Underwriters Laboratory flammability classification 94V-0

Mechanical Data

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



All Dimensions in mm

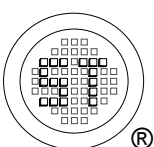
Maximum Ratings and Characteristics

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	Symbols	S2AF	S2BF	S2DF	S2GF	S2JF	S2KF	S2MF	Units
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 Current at $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current @ $T_L=110^\circ\text{C}$ 8.3ms Single Half-Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	60							A
Maximum Forward Voltage at $I_F = 2\text{ A}$	V_F	1.0							V
Maximum DC Reverse Current at $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_a = 125^\circ\text{C}$	I_R	5 100							μA
Typical Junction Capacitance ¹⁾	C_J	20							pF
Typical Thermal Resistance ²⁾	$R_{\theta JL}$	17							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to + 150							$^\circ\text{C}$

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V.

²⁾ Thermal resistance from junction to lead



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FIG.1 -- FORWARD DERATING CURVE

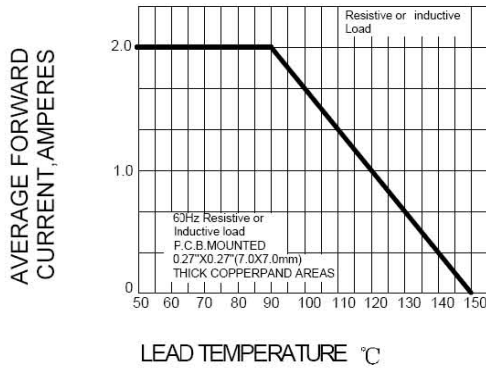


FIG.2 PEAK FORWARD SURGE CURRENT

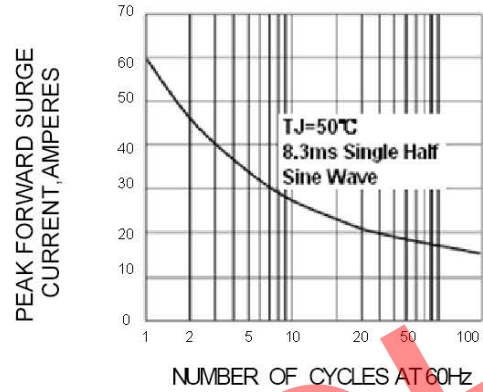


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

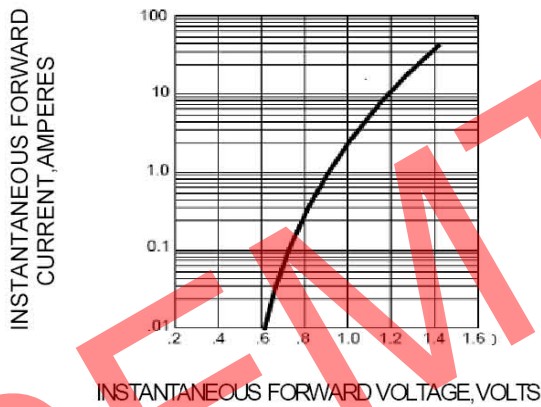


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

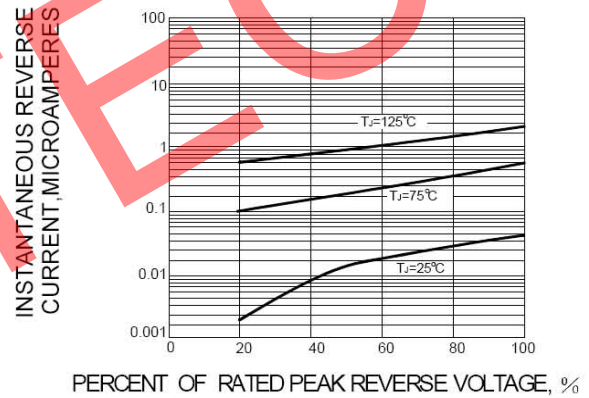
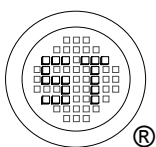
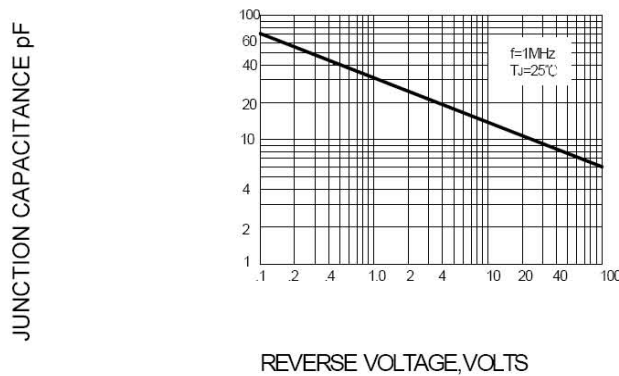


FIG.5-TYPICAL JUNCTION CAPACITANCE



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