

# S2AF THRU S2MF

## Surface Mount General Rectifiers

Reverse Voltage - 50 to 1000 V

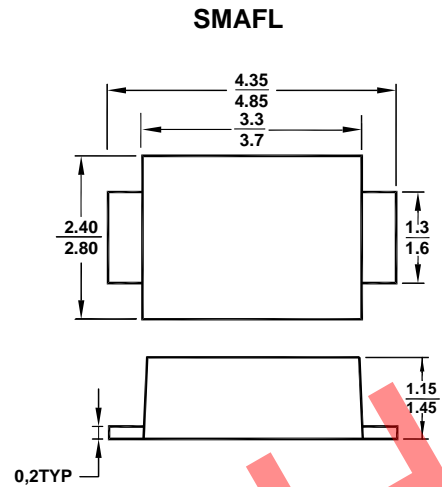
Forward Current - 2 A

### 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

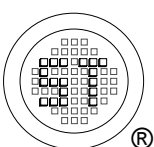
### Maximum Ratings and Characteristics

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%.

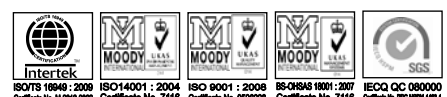
Parameter	Symbols	S2AF	S2BF	S2DF	S2GF	S2JF	S2KF	S2MF	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current at $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	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							$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_J$	20							pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JL}$	17							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 to + 150							$^\circ\text{C}$

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V.

<sup>2)</sup> Thermal resistance from junction to lead

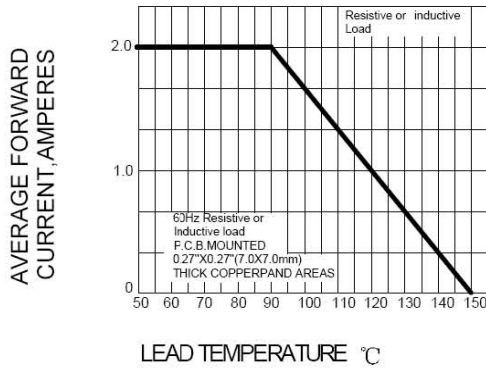


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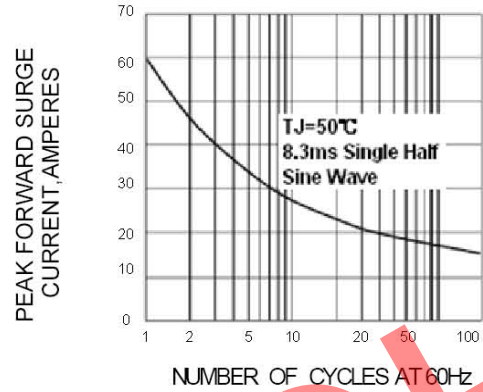


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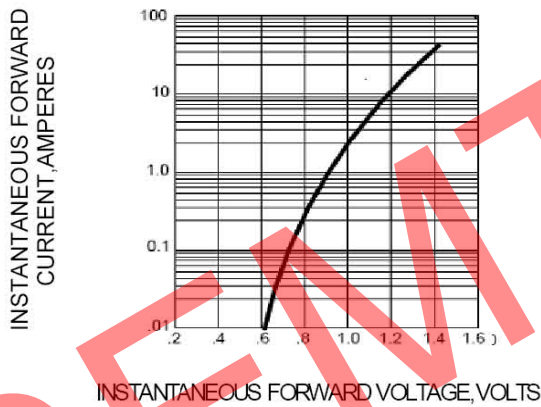
**FIG.1 -- FORWARD DERATING CURVE**



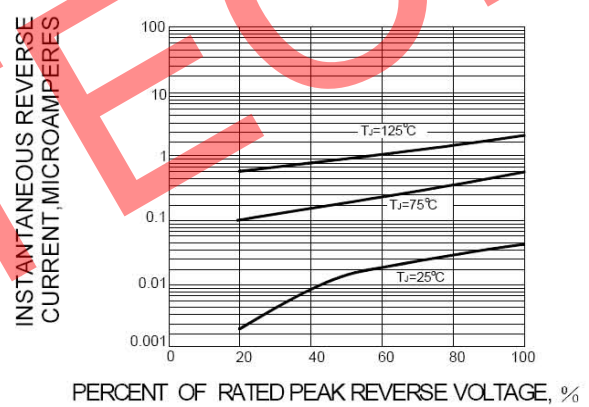
**FIG.2 PEAK FORWARD SURGE CURRENT**



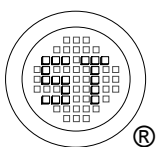
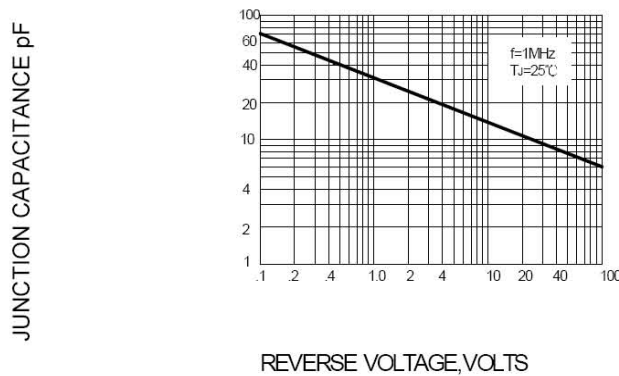
**FIG.3 -- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 -- TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



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