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

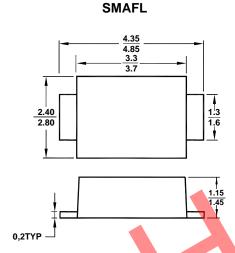
Mechanical Data

· 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	٧
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current at T _L = 100°C	I _{F(AV)}	2							Α
Peak Forward Surge Current @ TL=110°C 8.3ms Single Half-Sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	60							А
Maximum Forward Voltage at I _F = 2 A	V_{F}	1.0					V		
Maximum DC Reverse Current at $T_a = 25^{\circ}$ C at Rated DC Blocking Voltage at $T_a = 125^{\circ}$ C	I _R	5 100							μА
Typical Junction Capacitance 1)	C_J	20						pF	
Typical Thermal Resistance 2)	$R_{\theta JL}$	17						°C/W	
Operating and Storage Temperature Range	T_j , T_{stg}	-55 to + 150							°C

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











²⁾Thermal resistance from junction to lead

FIG.1 -- FORWARD DERATING CURVE

AVERAGE FORWARD CURRENT, AMPERES

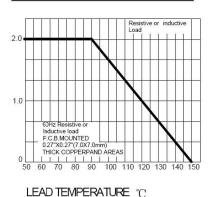
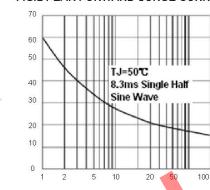


FIG.2 PEAK FORWARD SURGE CURRENT





NUMBER OF CYCLES AT 60Hz

FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

INSTANTANEOUS FORWARD CURRENT, AMPERES

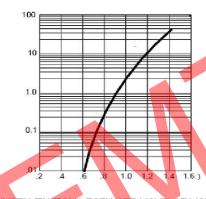
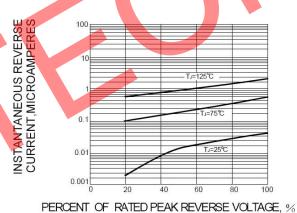


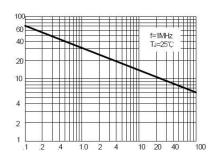
FIG.4 -- TYPICAL REVERSE CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.5-TYPICAL JUNCTION CAPACITANCE

JUNCTION CAPACITANCE PF



REVERSE VOLTAGE, VOLTS



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