



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

S2AF
THRU
S2MF

TECHNICAL SPECIFICATIONS OF GENERAL PURPOSE SILICON RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 2.0 Amperes

FEATURES

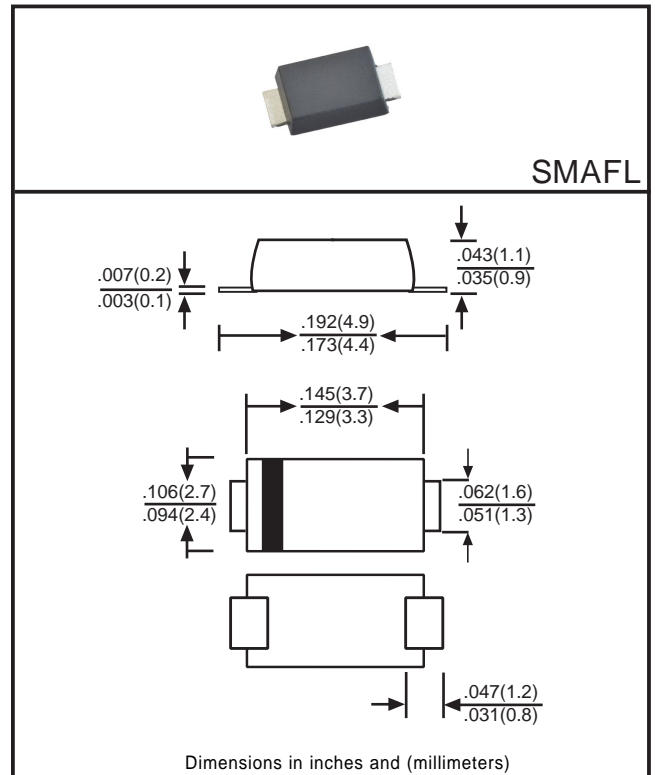
- * Ideal for surface mounted applications
- * Glass passivated junction
- * Low leakage current

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.03 gram approx.

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, derate current by 20%.



	SYMBOL	S2AF	S2BF	S2DF	S2GF	S2JF	S2KF	S2MF	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_A = 65^\circ C$	I_O	2.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							Amps
Maximum Instantaneous Forward Voltage at 2.0A DC	V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A=25^\circ C$	5.0							μ Amps
	@ $T_A=100^\circ C$	100							
Typical Junction Capacitance (Note 1)	C_J	30							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	85							$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ C$

Note 1: Measured at 1 MHz and applied reverse voltage of 4.0 volts.

Note 2: Typical thermal resistance from junction to ambient.

RATING AND CHARACTERISTIC CURVES (S2AF THRU S2MF)

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

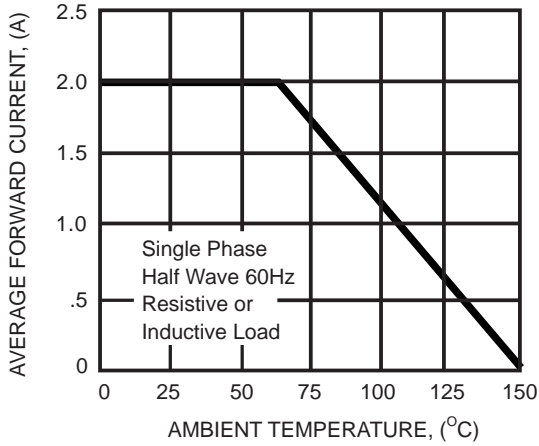


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

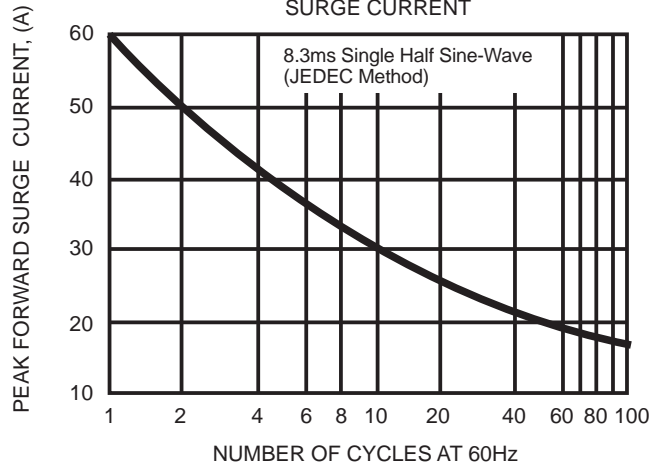


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

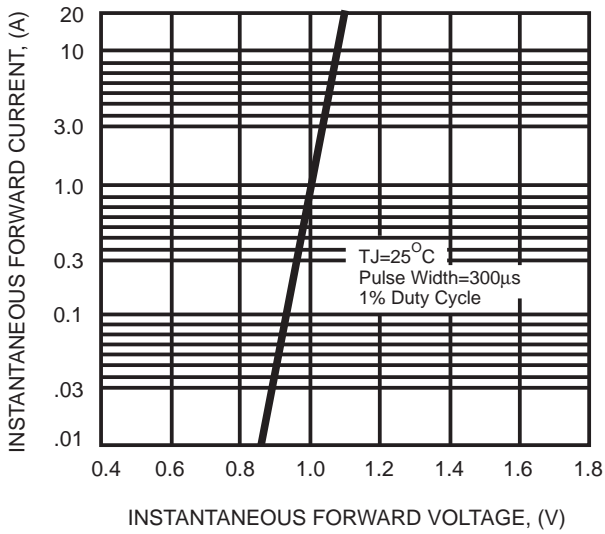


FIG. 4
TYPICAL REVERSE CHARACTERISTICS

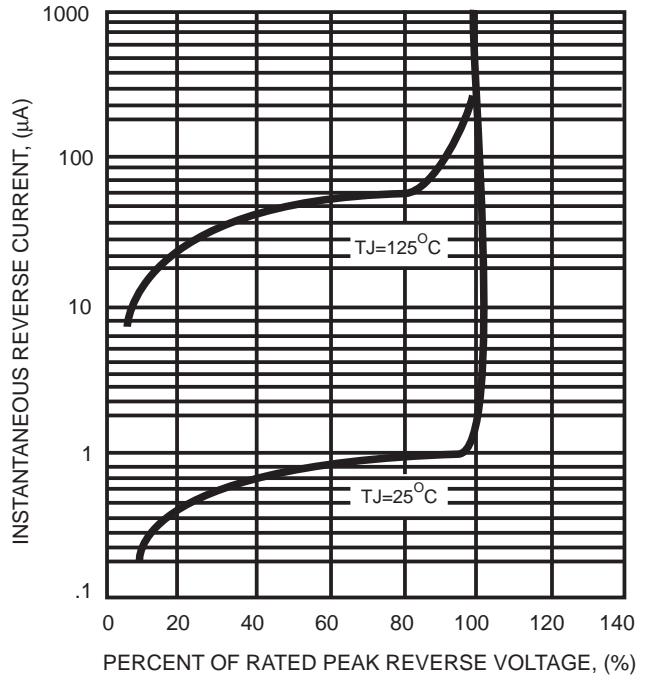
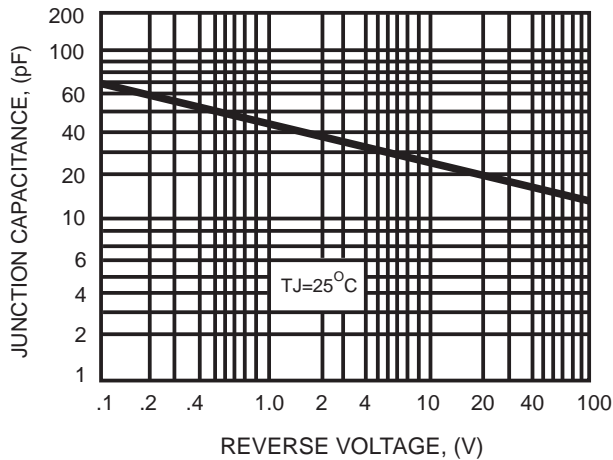


FIG. 5
TYPICAL JUNCTION CAPACITANCE



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