

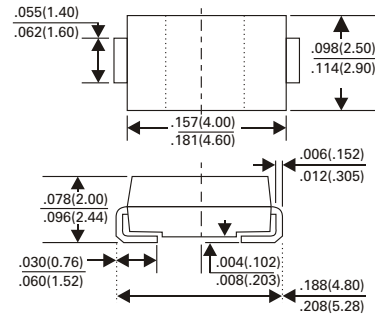
S2A thru S2M

SURFACE MOUNT STANDARD RECOVERY RECTIFIER

VOLTAGE - 50 TO 1000 VOLTS CURRENT - 2.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- For surface mount applications
- Glass passivated junction
- Low profile package
- Built-in strain relief
- Easy pick and place
- Low forward voltage drop
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering : 250°C/10 seconds at terminals

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic
 Terminals : Solder plated, solderable per MIL-STD-202, Method 208
 Polarity : Color band denotes cathode end
 Standard Package : 12mm tape (EIA STD EIA-481)
 Weight : 0.002 ounce, 0.064gram

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	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Maximum Repetitive 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 $T_L = 100^\circ\text{C}$	$I_{(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3mm Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							Amps
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.1							Volts
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	I_R	5 125							μA
Typical Junction Capacitance (NOTE 1)	C_J	30							pF
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	53 16							$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +150							$^\circ\text{C}$

NOTES :

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
2. The thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27x0.27" (7.0x7.0mm) copper pad areas

S2A thru S2M

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RATINGS AND CHARACTERISTIC CURVES S2A THRU S2M

Fig. 1 - FORWARD CURRENT DERATING CURVE

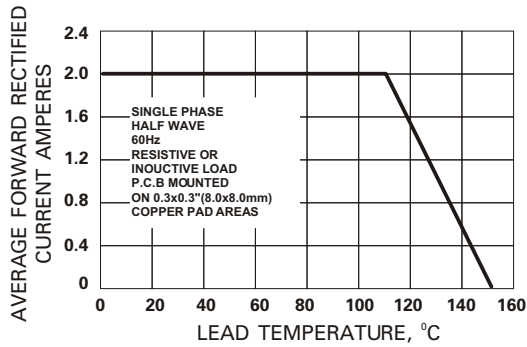


Fig. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

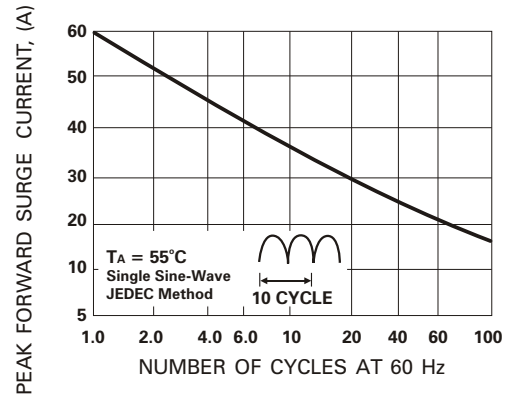


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

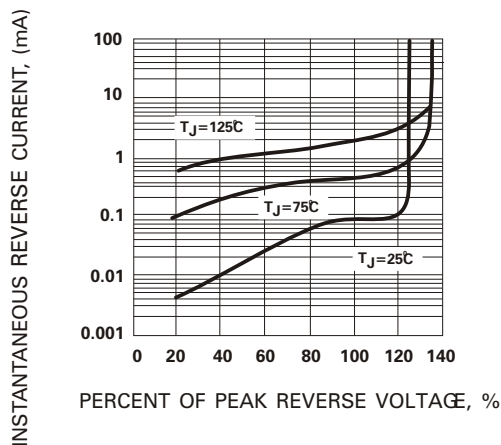


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

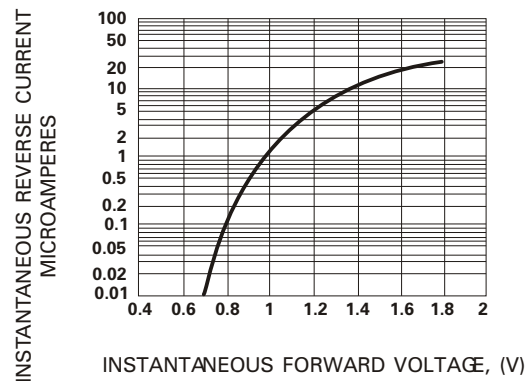


Fig. 5 - TRANSIENT THERMAL IMPEDANCE

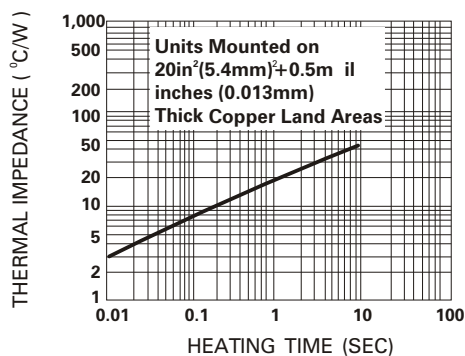


Fig. 6 - TYPICAL JUNCTION CAPACITANCE

