S3A THRU S3M

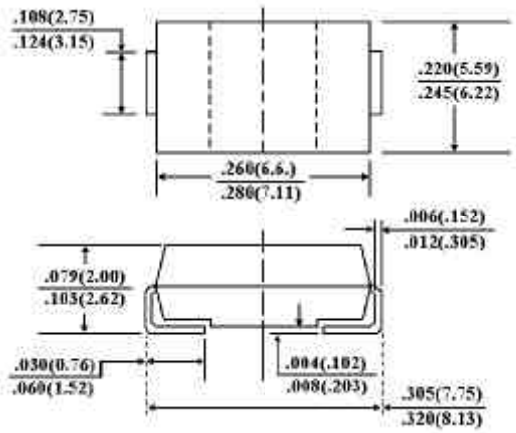
SURFACE MOUNT RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 3.0 Amperes

FEATURES

- For surface mounted applications
- Low profile package
- Bu t-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammabi ty Classification 94V-O
- Glass passivated junction
- High temperature soldering: 260 ¢J/10 seconds at terminals

SMC/DO-214AB



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

Standard packaging: 16mm tape (EIA-481)

Weight: 0.007 ounce, 0.21 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOLS	S3A	S3B	S3D	S3G	S3J	S3K	S3M	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_L=75 ¢J	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	100.0							Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.20							Volts
Maximum DC Reverse Current T_A=25 ¢J At Rated DC Blocking Voltage T_A=125 ¢J	I_R	5.0 250							£gA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	2.5							£gS
Typical Junction capacitance (Note 2)	C_J	53							$_P$F
Typical Thermal Resistance (Note 3)	R £KJL R £KJA	13 47							¢J/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150							¢J

NOTES:

1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A
2. Measured at 1 MHz and Applied Vr=4.0 volts
3. 8.0mm^2 (.013mm thick) land areas

RATING AND CHARACTERISTIC CURVES

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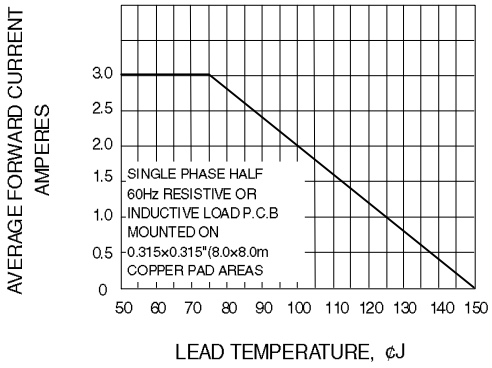

Fig. 1-FORWARD CURRENT DERATING CURVE

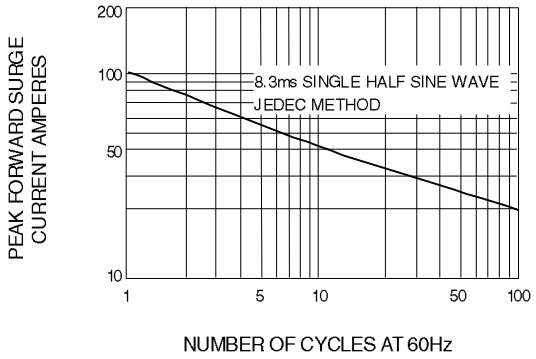

Fig. 2-MAXIMUM NON-REPETITIVE SURGE CURRENT

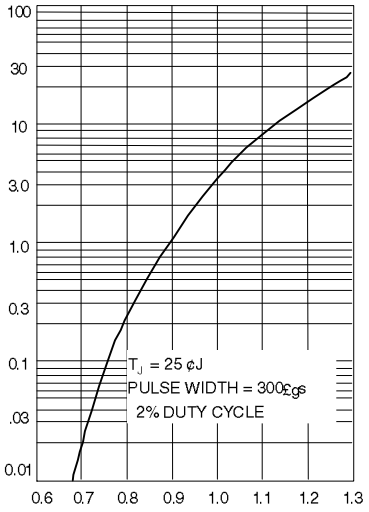

Fig. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

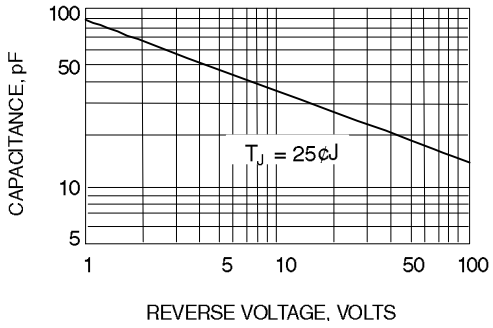

Fig. 4-TYPICAL JUNCTION CHARACTERISTICS

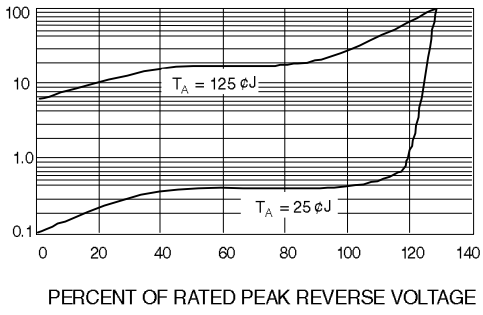

Fig. 5-TYPICAL REVERSE CHARACTERISTICS