S3A THRU S3M

SURFACE MOUNT RECTIFIER
VOLTAGE - 50 - 1000 Volts CURRENT - 3.0 Amperes

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering: 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic

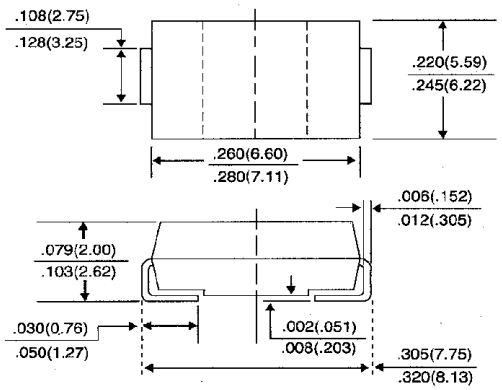
Terminals: Solder plated solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

Standard Packaging: 16mm tape (EIA-481)

Weight: 0.007 ounces, 0.21 gram

SMC/DO-214AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL 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%.

	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 $T_L = 75°C$	$I_{(AV)}$	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 $T_A = 25°C$ at Rated DC Blocking Voltage $T_A = 125°C$	I_R	5.0 250.0							µA
Typical Reverse Recovery Time (NOTE 1)	T_{RR}	2.5							µs
Typical Junction Capacitance (NOTE 2)	C_J	53							pf
Maximum Thermal Resistance (NOTE 3)	RΘJL RΘJA	13 47							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

NOTES:
1. Reverse Recovery Test conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$.
2. Measured at 1.0 MHz and applied $V_r = 4.0$ volts.
3. 8.0mm² (.013mm thick) land areas.

SURGE COMPONENTS, INC. 1016 GRAND BLVD., DEER PARK, NY 11729
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RATING AND CHARACTERISTIC CURVES
S3A THRU S3M

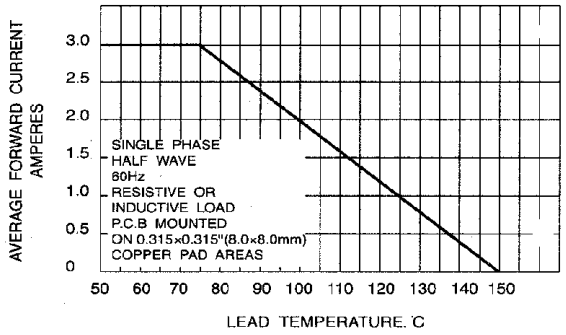

FIG. 1 – FORWARD CURRENT DERATING CURVE

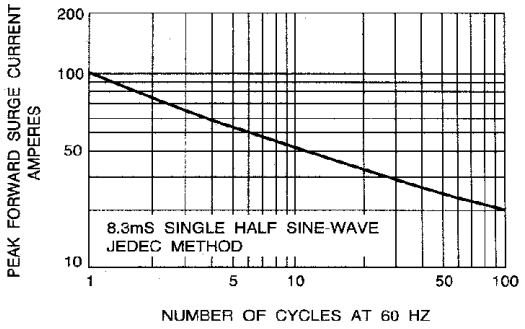

FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

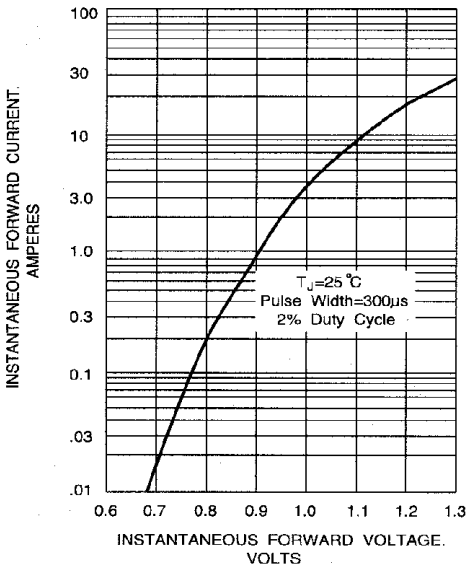

FIG. 3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

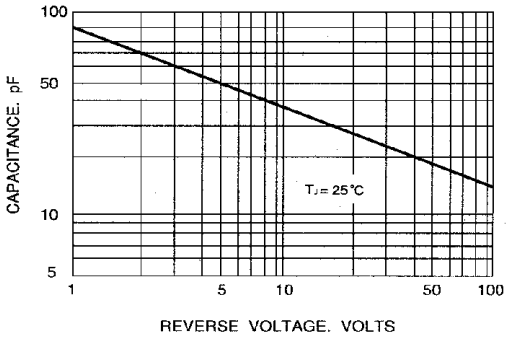

FIG. 4 – TYPICAL JUNCTION CHARACTERISTICS

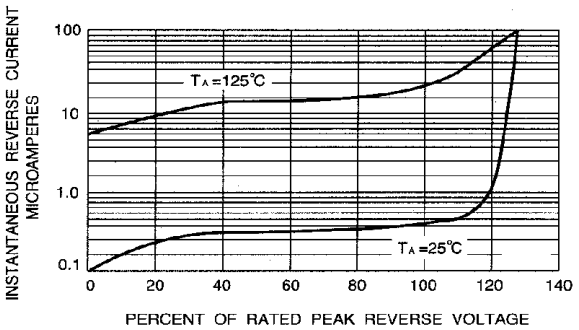

FIG. 5 – TYPICAL REVERSE CHARACTERISTICS

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