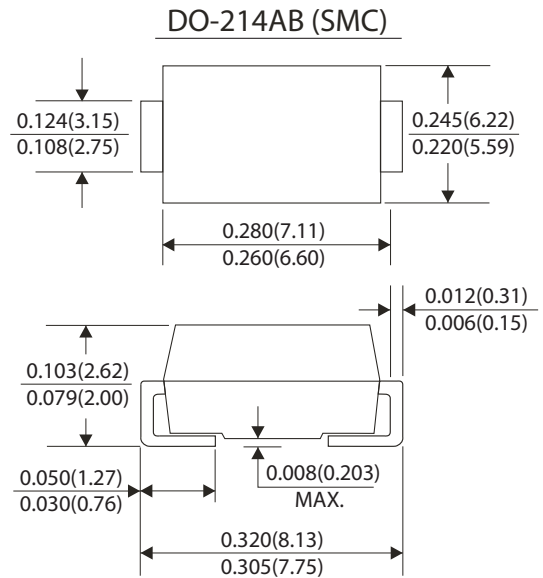


### Features

- For surface mounted applications
- Glass passivated junction
- Low profile package
- Built-in strain relief, ideal for automated placement
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed: 250°C/10 seconds, at terminals

### Mechanical Data

- Case : JEDEC SMC(DO-214AB) molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.007 ounce, 0.25 gram



Dimensions in inches and (millimeters)

### 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 by 20%)

	Symbols	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Units
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T <sub>L</sub> =75°C (Note 2)	I <sub>(AV)</sub>	3.0							Amps
Peak forward surge current 8.3ms half sine wave superimposed on rated load (JEDEC method) T <sub>L</sub> =75°C	I <sub>FSM</sub>	100.0							Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.15							Volts
Maximum reverse current at rated voltage	T <sub>A</sub> =25°C	1.0							µA
	T <sub>A</sub> =125°C	250							
Typical thermal resistance (Note 2)	R <sub>θJL</sub>	13.0							°C/W
	R <sub>θJA</sub>	47.0							
Typical reverse capacitance (Note 3)	trr	2.5							µS
Typical junction capacitance (Note 1)	C <sub>J</sub>	60.0							pF
Operating and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-55 to +175							°C

#### Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4.0V dc.
- (2) Thermal resistance from junction to ambient and from junction to lead mounted on 0.2×0.2"(0.5×0.5mm) copper opad areas.
- (3) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A



# RATINGS AND CHARACTERISTIC CURVES S3A THRU S3M

FIG.1-FORWARD CURRENT DERATING CURVE

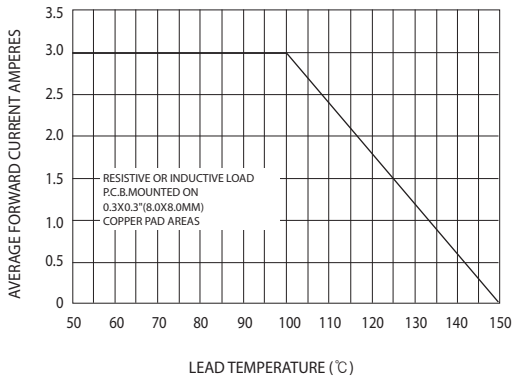


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

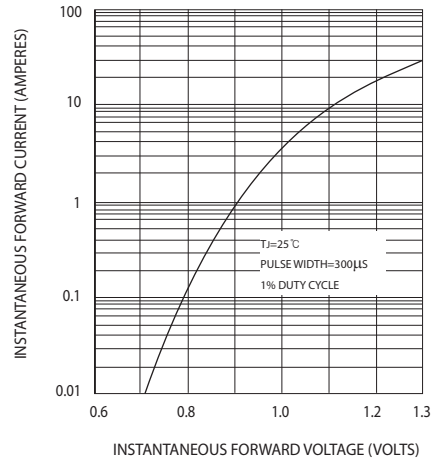


FIG.4-TYPICAL REVERSE CHARACTERISTICS

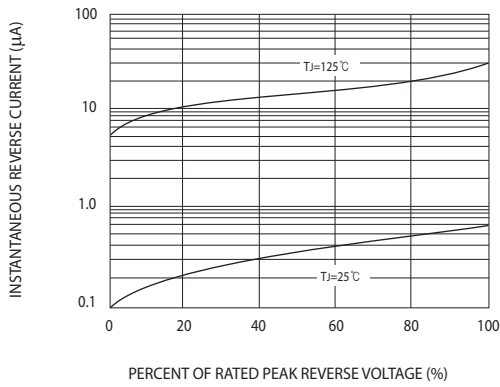


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

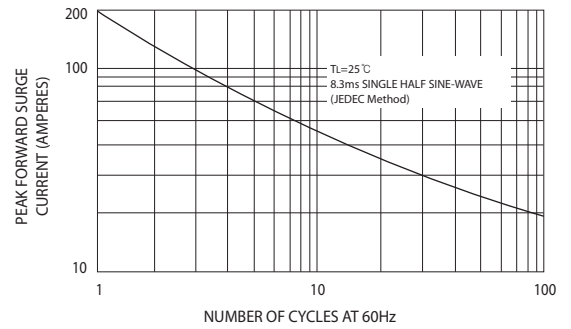


FIG.5-TYPICAL JUNCTION CAPACITANCE

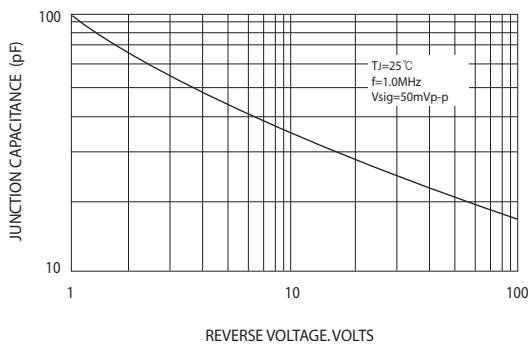


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

