

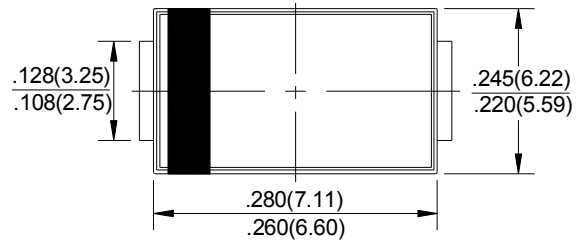
CURRENT 8.0 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

## RS8AC THRU RS8MC

### Features

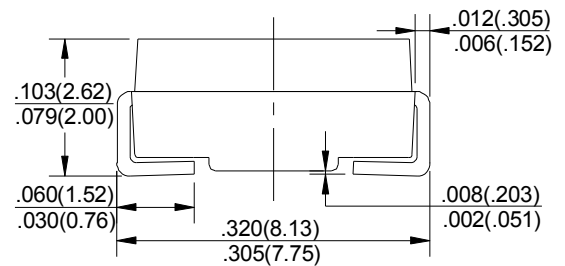
- Glass Passivated Die Construction
- Fast Recovery Time for High Efficiency
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automatic Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0

### DO-214AB/SMC



### Mechanical Data

- Case: SMC(DO-214AB), Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

@ T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	RS8A	RS8B	RS8D	RS8G	RS8J	RS8k	RS8M	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T <sub>L</sub> =75°C	I <sub>(AV)</sub>	8.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300							A
Maximum instantaneous forward voltage at 5.0A	V <sub>F</sub>	1.3							V
Maximum DC reverse current T <sub>A</sub> =25°C at rated DC blocking voltage T <sub>A</sub> =100°C	I <sub>R</sub>	5.0 100.0							μA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	150			250		500		ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	78.0							pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	50.0							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150							°C

Note: 1. Reverse recovery condition I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

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**RS8AC THRU RS8MC**

RATING AND CHARACTERISTIC CURVES RS8AC Thru RS8MC

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

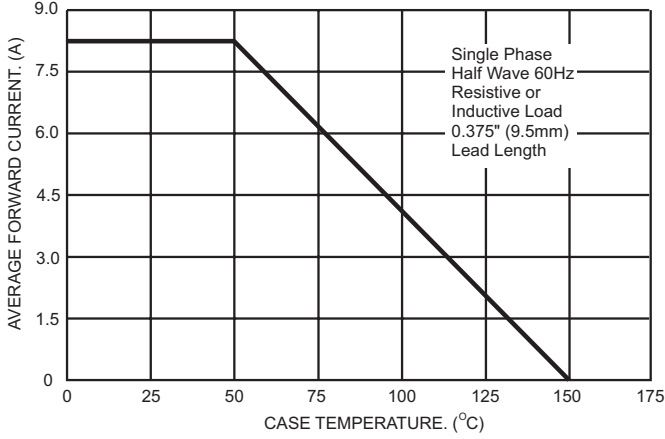


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

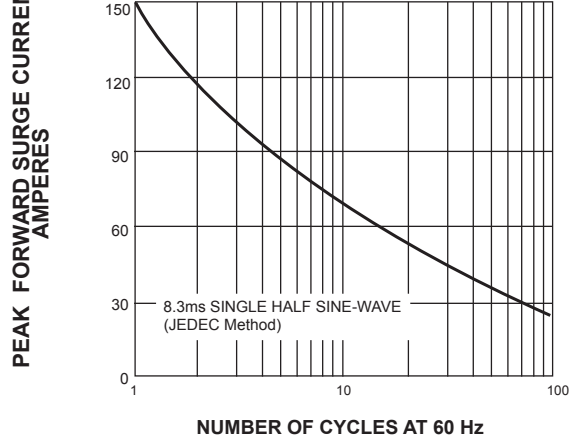


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

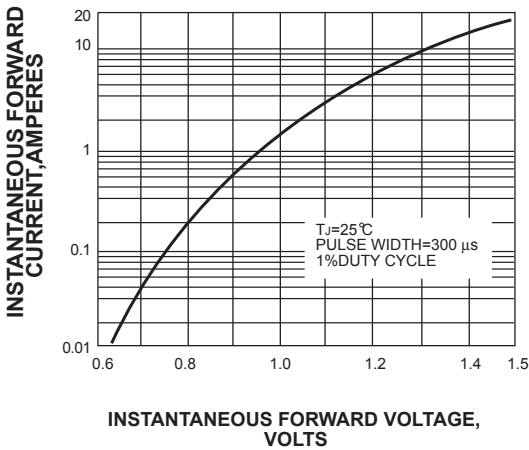


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

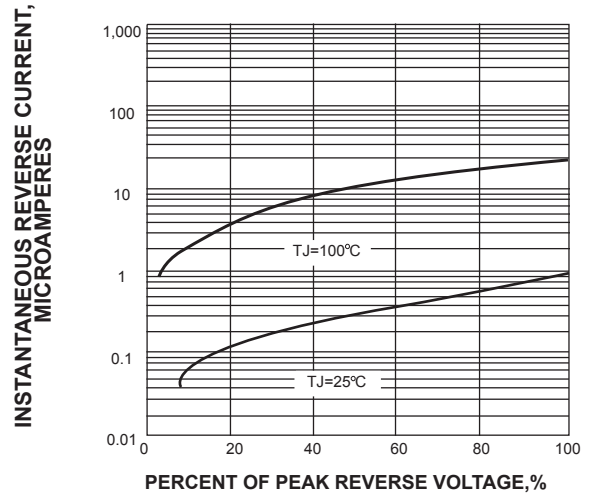


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE

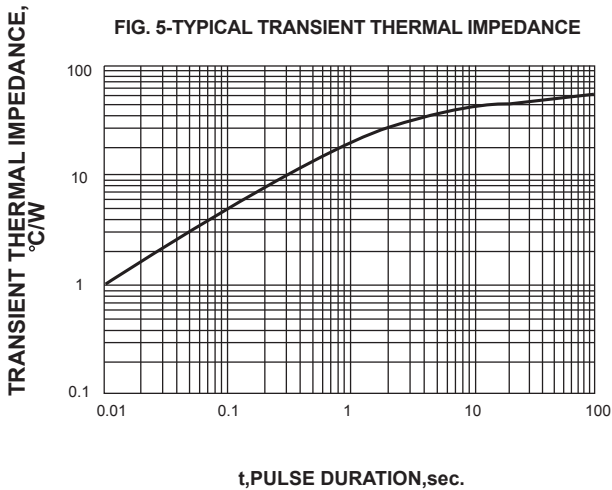


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

