

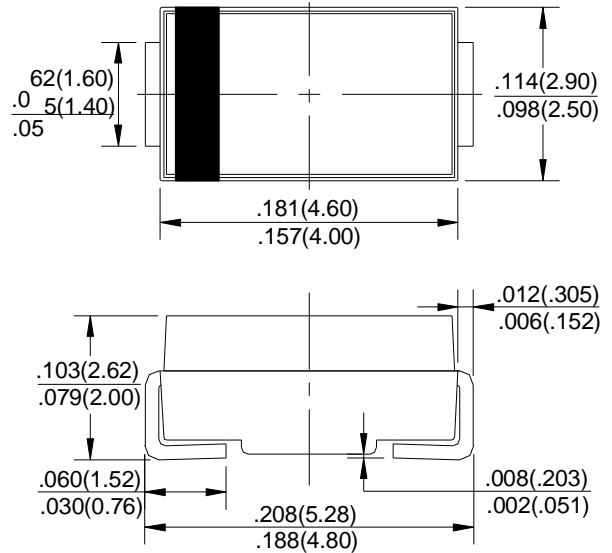
CURRENT 1.0 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

RS1A THRU RS1M

FEATURES

- Plastic package has underwrites laboratory flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Fast switching for high efficiency
- Glass passivated chip junction
- High temperature soldering
- 250 /10 second at terminals

DO-214AC (SMA)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDED DO-214AC molded plastic over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002ounce, 0.064 gram

MAXIMUM RATINGS & THERMAL CHARACTERISTICS

- Ratings at 25 ambient temperature unless otherwise specified

	SYMBOLS	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNIT
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 $T_L=90$	$I_{F(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L=90$	$I_{FSM}$	30							Amps
Typical Thermal Resistance (Note 1)	$R_{JA}$	105							/W
	$R_{JL}$	32							
Operating junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							

ELECTRICAL CHARACTERISTICS

	SYMBOLS	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNIT
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25$	5.0							$\mu A$
	$T_A = 125$	50							
Typical Reverse Recovery Time at $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$	$t_{rr}$	150				250	500		ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	30						7.0	pF

Notes:

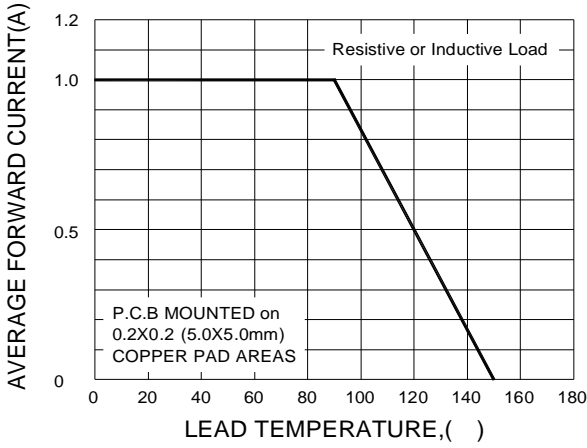
- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.2x0.2" (5.0 x 5.0mm) copper pad areas.

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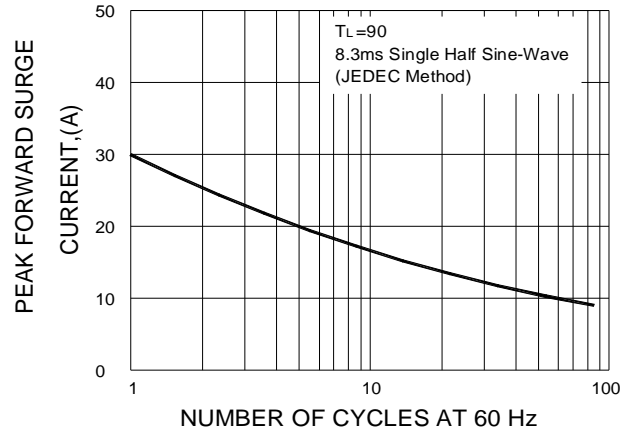
**RS1A THRU RS1M**

RATING AND CHARACTERISTIC CURVES RS1A Thru RS1M

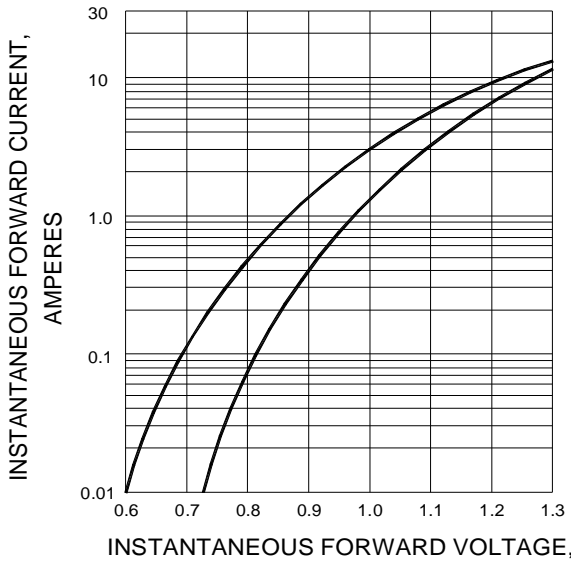
F1G.1-FORWARD CURRENT DERATING CURVE



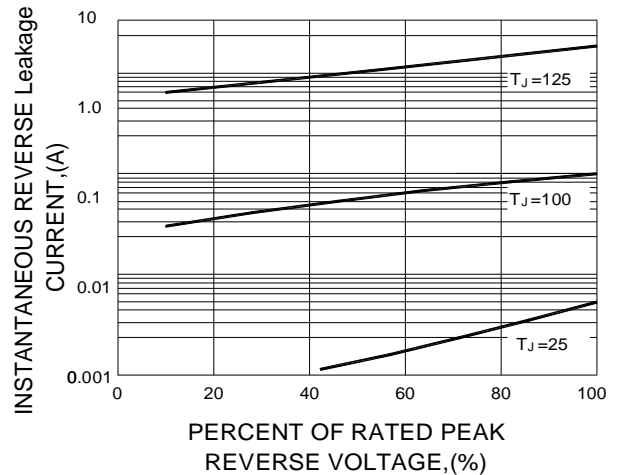
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



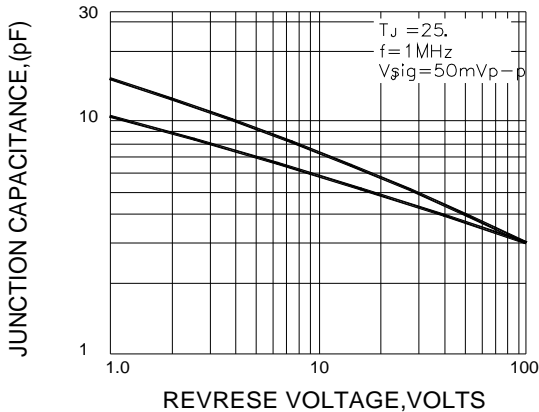
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

