

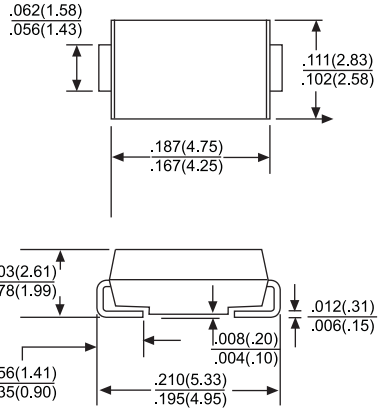


RS1A THRU RS1M

1.0 AMP. FAST RECOVERY SURFACE MOUNT RECTIFIERS

Voltage Range
50 to 1000 Volts
Current
1.0 Amperes

SMA/DO-214AC



Dimensions in inches and (millimeters)

Features

- For surface mounted application
- Class passivated junction chip.
- Built-in strain relief, ideal for automated placement
- Plastic material used carriers Underwriters Laboratory Classification 94V-O
- Fast switching for high efficiency
- High temperature soldering:
250°C/ 10 seconds at terminals

Mechanical Data

- Case: Molded plastic
- Terminals: Solder plated
- Polarity: Indicated by cathode band
- Packaging: 12mm tape per E1A STD RS-481
- Weight: 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

Type Number		RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current See Fig.1 @T _L =90°C	I _{F(AV)}	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	V _F	1.3							V
Maximun DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 125°C	I _R	5 50							uA uA
Maxium Reverse Recovery Time (Note 1)	T _{RR}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C _J	10							pF
Typical Thermal Resistance	R _{θJA} R _{θJL}	105.0 32.0							°C/W °C/W
Operating Temperature Range	T _J	-55 to+150							°C
Storage Temperature Range	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 1MHz and Applied V_R=4.0 Volts
 3.Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with 0.2" x0.2"
 (5.0 x 5.0 mm) Copper Pad Areas.

RATING AND CHARACTERISTIC CURVES RS1A THRU RS1M



FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

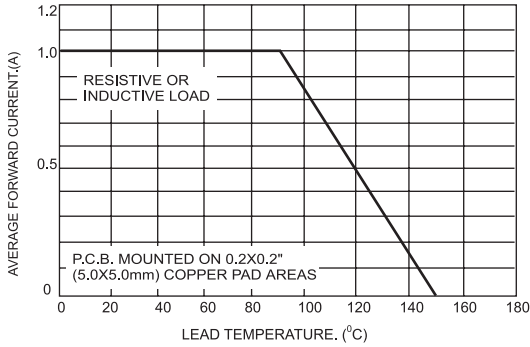


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

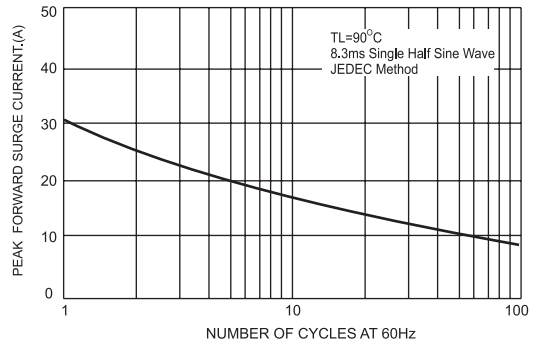


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

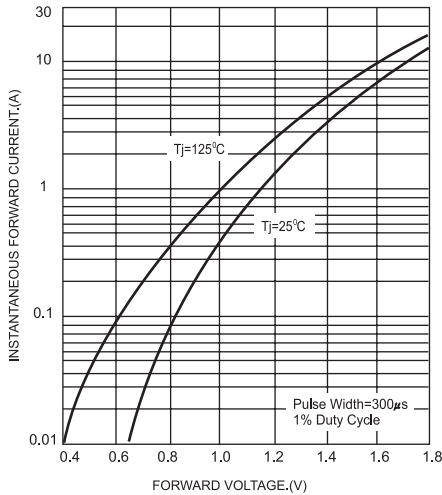


FIG.4-TYPICAL REVERSE CHARACTERISTICS

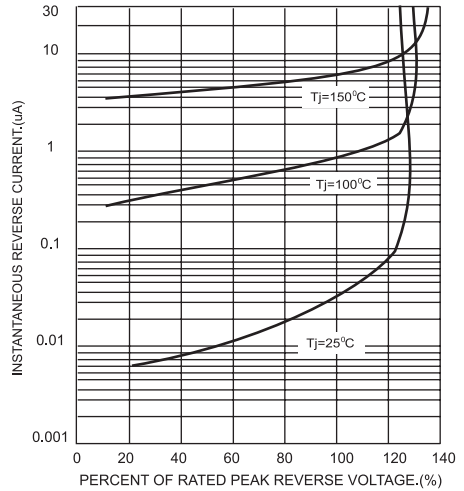


FIG.5-TYPICAL JUNCTION CAPACITANCE

