

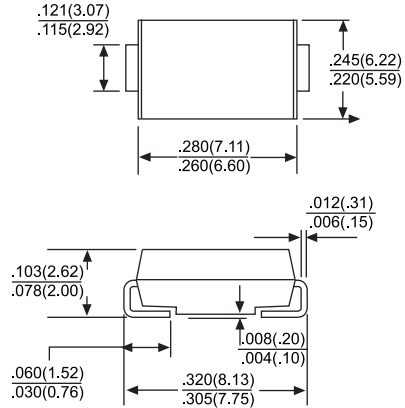


RS3A THRU RS3M

3.0 AMPS. FAST RECOVERY SURFACE MOUNT RECTIFIERS

Voltage Range
50 to 1000 Volts
Current
3.0 Amperes

SMC/DO-214AB



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 EIA STD RS-481
- Weight: 0.093 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		RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	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 =75°C	I _{F(AV)}					3.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}					100			A
Maximum Instantaneous Forward Voltage @ 3.0A	V _F					1.3			V
Maximum DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 125°C	I _R					10 250			uA uA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C _J					60			pF
Typical Thermal Resistance(Note3)	R ^θ _{JA} R ^θ _{JL}					50.0 15.0			°C/W °C/W
Operating Junction 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 0.3" x0.3"
(8.0 x 8.0 mm) Copper Pad Areas.

RATING AND CHARACTERISTIC CURVES RS3A THRU RS3M



FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

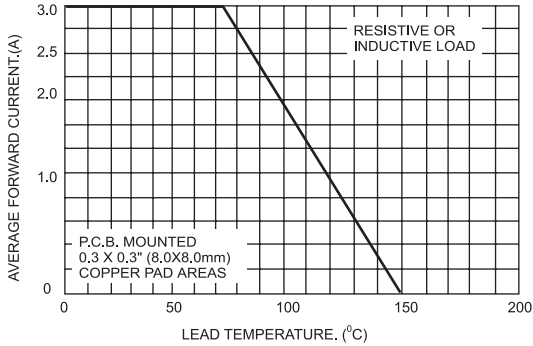


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

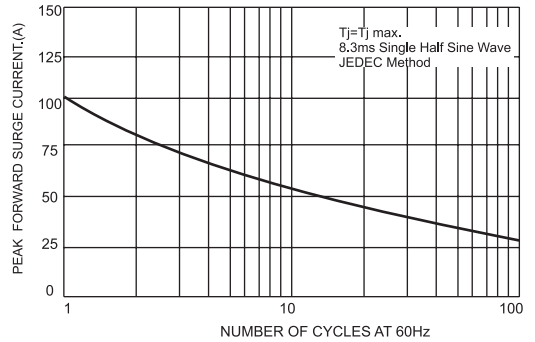


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

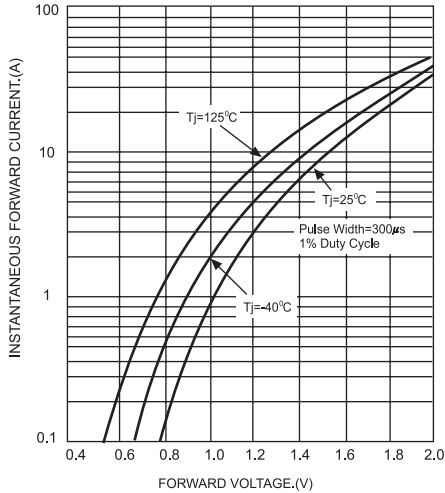


FIG.4-TYPICAL REVERSE CHARACTERISTICS

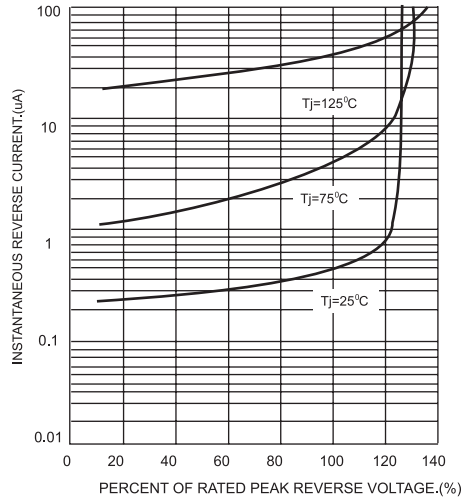


FIG.5-TYPICAL JUNCTION CAPACITANCE

