

RS3A THRU RS3M

SURFACE MOUNT FAST SWITCHING RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Ampere

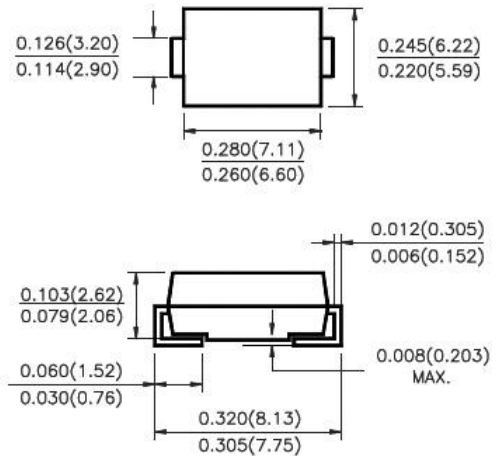
FEATURES

- ◆ 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 guaranteed:
250°C/10 second at terminals

Mechanical Data

- ◆ Case: JEDED DO-214AB molded plastic over glass passivated chip
- ◆ Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- ◆ Polarity: Color band denotes cathode end

DO-214AB (SMC)



Dimensions in inches and (millimeters)

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%

	SYMBOLS	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	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	$I_{F(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50							°C/W
	$R_{\theta JL}$	15							
Operating junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

ELECTRICAL CHARACTERISTICS

	SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ C$	5.0							uA
	$T_A = 125^\circ C$	50							
Typical Reverse Recovery Time at $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	t_{rr}	150				250	500	ns	

Note: 1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.3 × 0.3" (8.0 × 8.0mm) copper pad areas.

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RATING AND CHARACTERISTIC CURVES RS3A THRU RS3M

FIG.1-FORWARD CURRENT DERATING CURVE

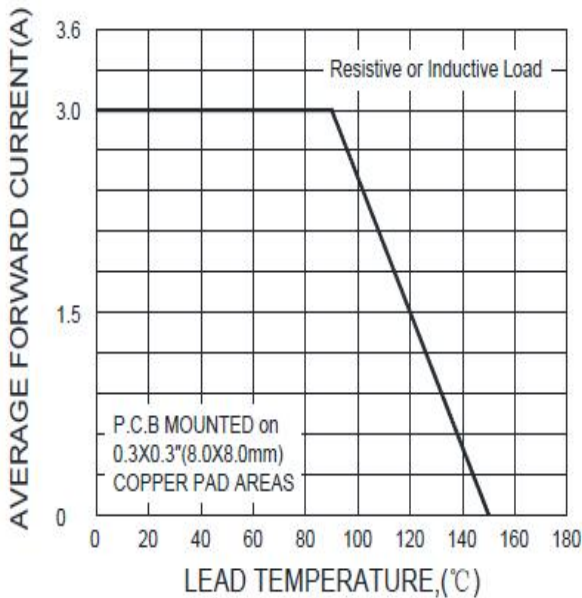


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

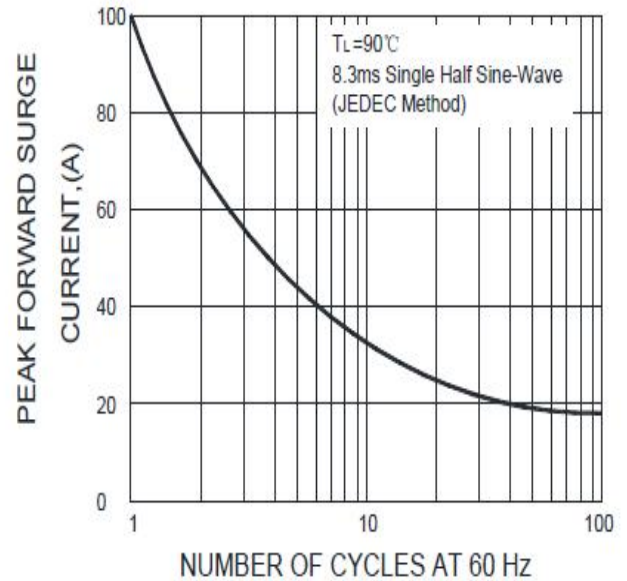


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

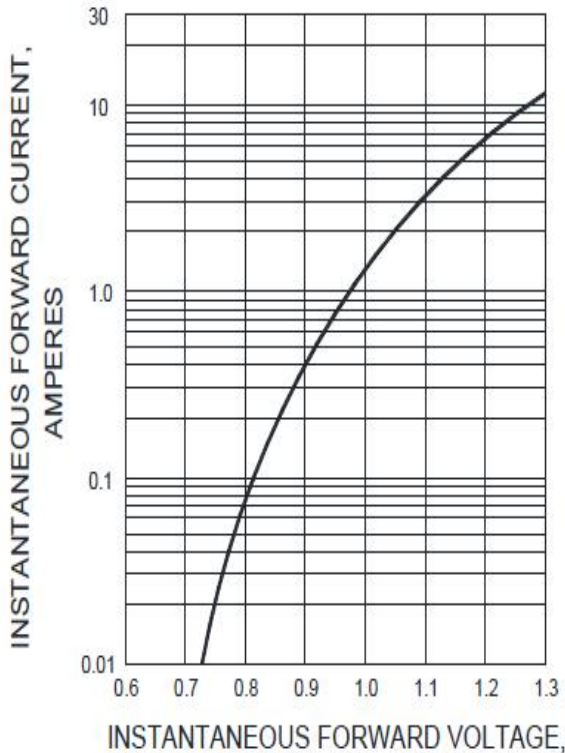
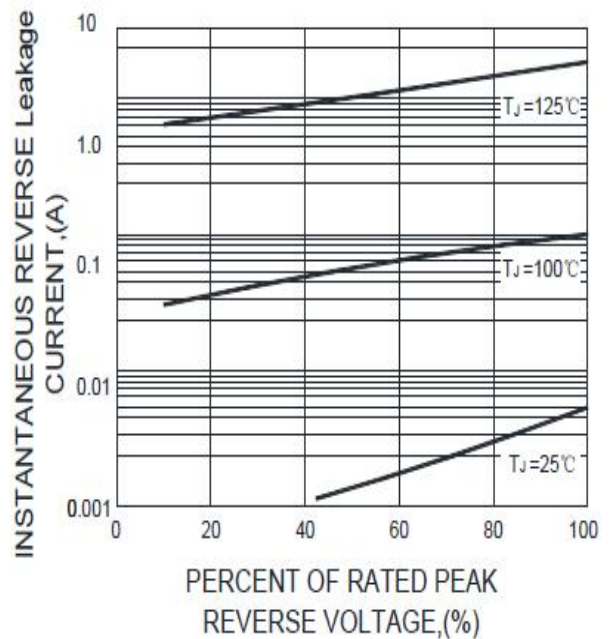


FIG.4-TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.