

RS5A THRU RS5M

SSURFACE MOUNT SUPER FAST RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 5.0 Ampere

FEATURES

- ◆ Plastic package has underwrites laboratory flammability

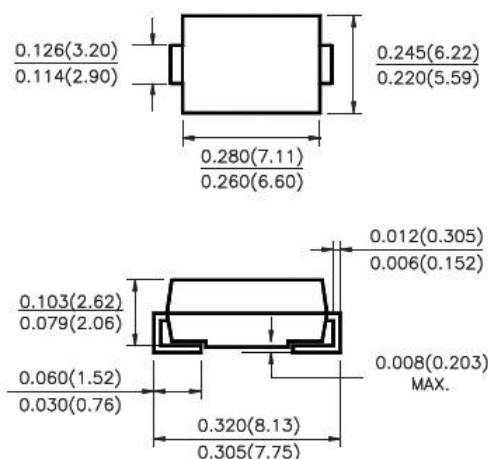
Classification 94V-0

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Glass passivated chip junction
- ◆ High temperature soldering guaranteed:
250°C/10 second at terminals

Mechanical Data

- ◆ Case: JEDED DO-214AA molded plastic over glass passivated chip
- ◆ Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- ◆ Polarity: Color band denotes cathode end
- ◆ Weight: 0.007ounce, 0.25 gram

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	RS5A	RS5B	RS5D	RS5G	RS5J	RS5K	RS5M	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)}	5.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150							Amps
Typical Thermal Resistance (Note 1)	R _{θJA}	47							°C/W
	R _{θJL}	13							
Operating junction and Storage Temperature Range	T _J ,T _{STG}	-55 to +150							°C

ELECTRICAL CHARACTERISTICS

TYPE NUMBER		SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT
Maximum Instantaneous Forward Voltage at 5.0A		V _F	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	T _A = 25°C	I _R	5.0							uA
	T _A =125°C		50							
Typical Reverse Recovery Time at I _F =0.5A, I _R =1.0A, I _{PR} =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 RS5A THRU RS5M

FIG.1—FORWARD CURRENT DERATING CURVE

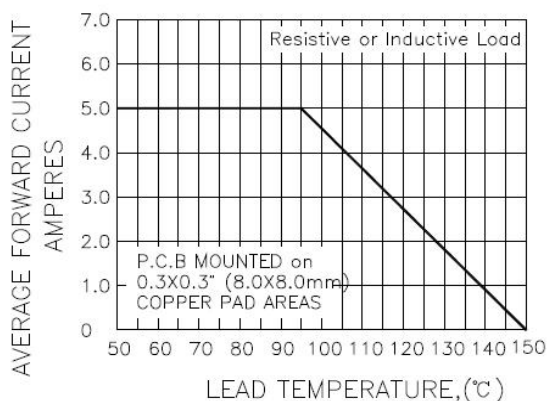


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

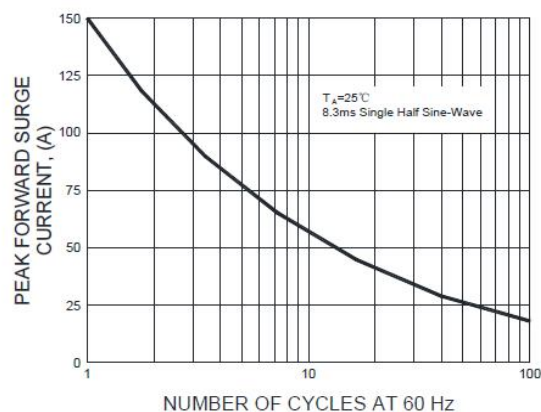


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

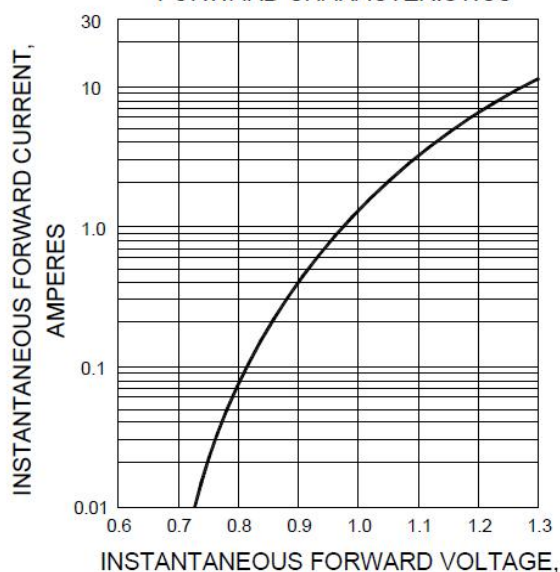


FIG.4-TYPICAL REVERSE CHARACTERISTICS

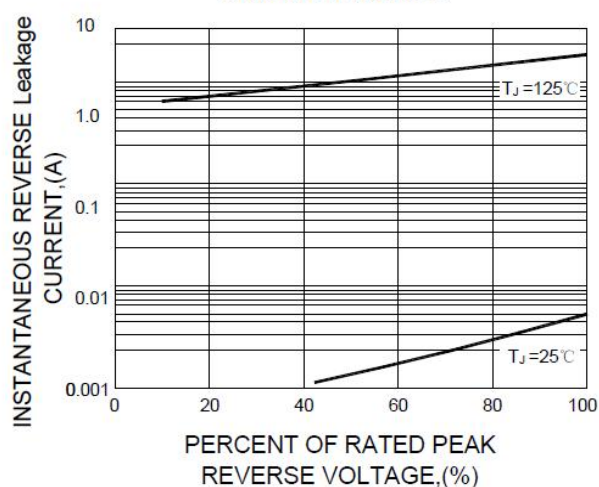


FIG.5—TYPICAL JUNCTION CAPACITANCE

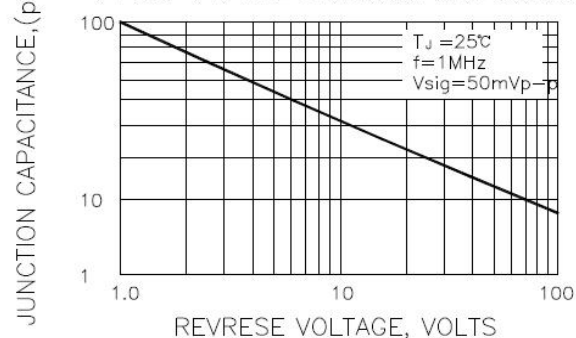
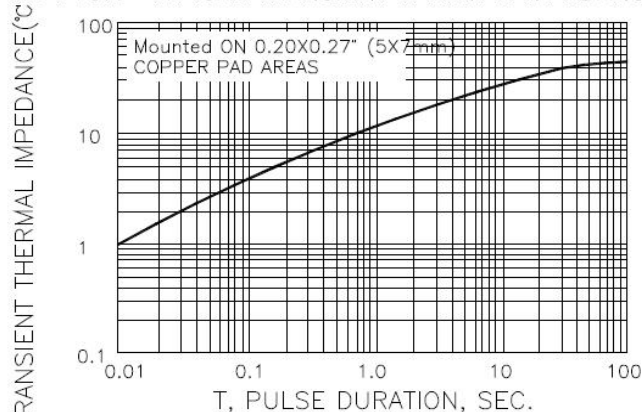


FIG.6—TYPICAL TRANSIENT THERMAL IMPEDANCE



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