

RS2A THRU RS2M

SURFACE MOUNT FAST SWITCHING RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0 Ampere

FEATURES

- ◆ Plastic package has underwrites laboratory flammability

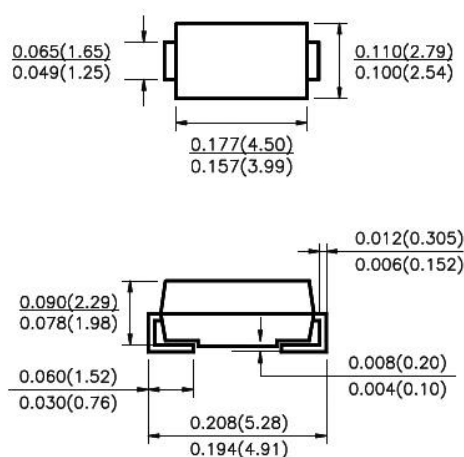
Classification 94V-0

- ◆ 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 seconds at terminals

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

DO-214AC (SMA)



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	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	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 at T _L = 90°C	I _{F(AV)}	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T _L = 90°C	I _{FSM}	50							Amps
Typical Thermal Resistance (Note 1)	R _{θJA}	105							°C/W
	R _{θJL}	32							
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 1.5A		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 _{RR} =0.25A		t _{rr}	150				250	500		ns
Typical junction capacitance at 4.0V, 1MHz		C _J	30					7.0		pF

Note: 1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with $0.3 \times 0.3''$ ($8.0 \times 8.0\text{mm}$) copper pad areas

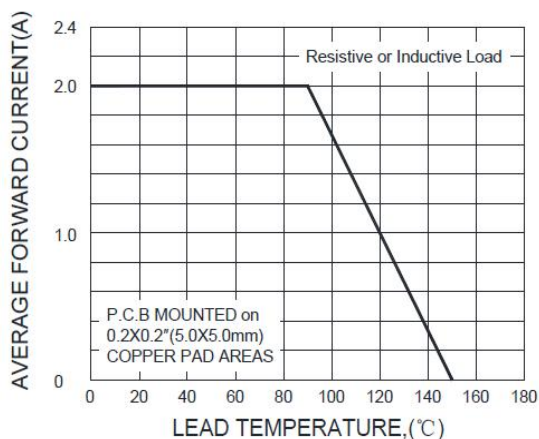
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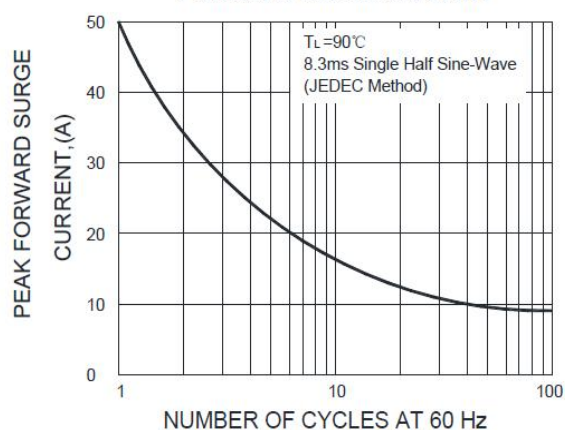
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RATING AND CHARACTERISTIC CURVES RS2A THRU RS2M

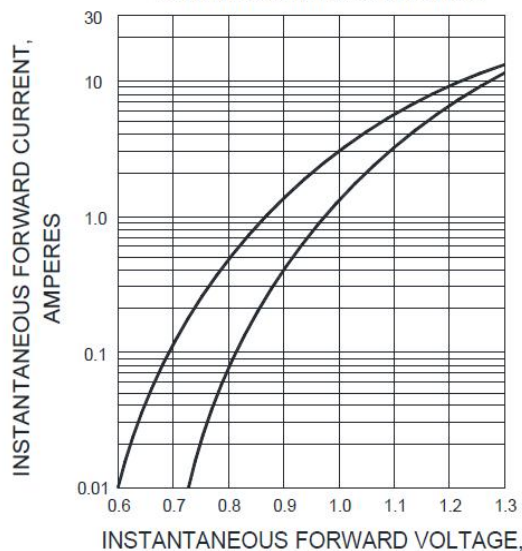
F1G.1-FORWARD CURRENT DERATING CURVE



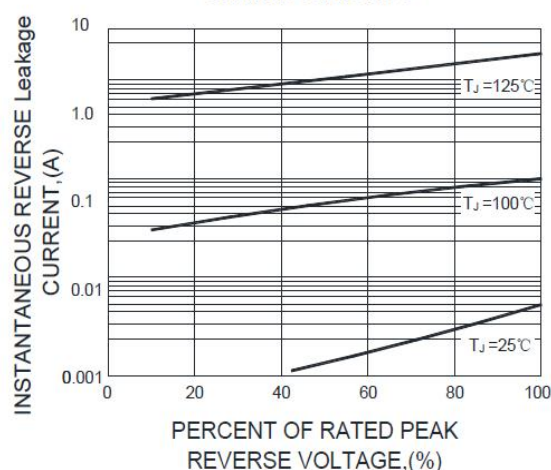
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



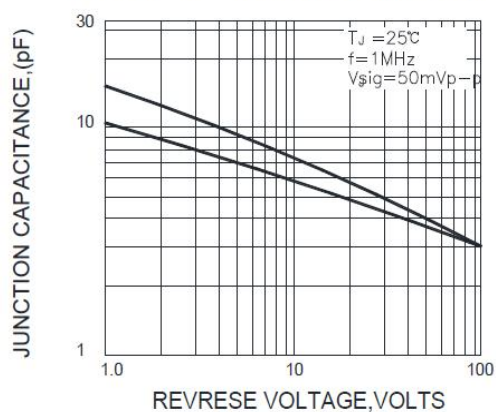
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



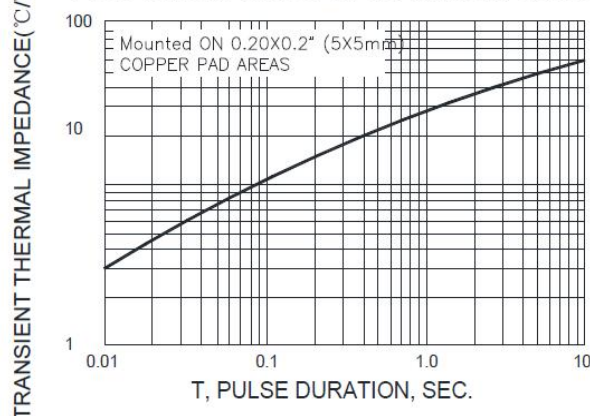
F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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