



SURFACE MOUNT FAST SWITCHING RECTIFIER

RS2A THRU RS2M

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 2.0 Ampere

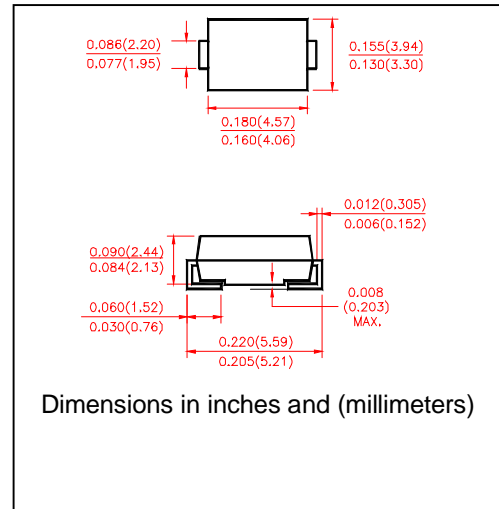
FEATURES

- 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:
250°C/10 second at terminals

MECHANICAL DATA

- Case: JEDEC 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: 0.002ounce, 0.064 gram

DO-214AA(SMB)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

MAXIMUM RATINGS & THERMAL CHARACTERISTICS

PARAMETELS	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 $T_L=100^\circ\text{C}$	$I_{F(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L=100^\circ\text{C}$	I_{FSM}	50							Amps
Typical Thermal Resistance (NOTE 1)	$R_{\theta JA}$	55							°C/W
	$R_{\theta JL}$	18							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

ELECTRICAL CHARACTERISTICS

PARAMETELS	SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT	
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.30							Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	I_R							5.0	µA
	$T_A = 125^\circ\text{C}$								200	
Typical Reverse Recovery Time $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$,	T_{rr}	150				250	500		ns	
Typical junction capacitance at 4.0V, 1MHz	C_J	30							pF	

Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.27×0.27" (7.0 × 7.0mm) copper pad areas.



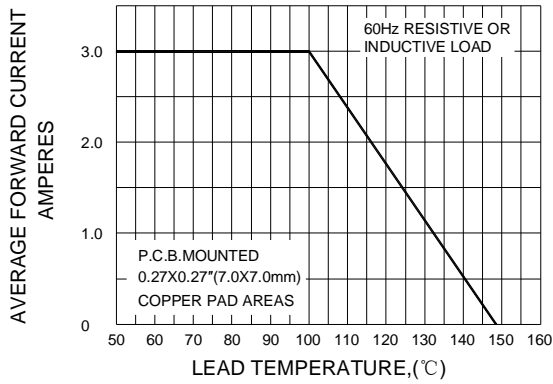
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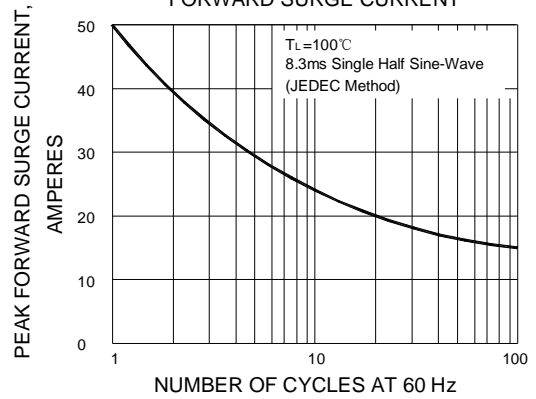
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RATINGS AND CHARACTERISTIC CURVES RS2A THRU RS2M

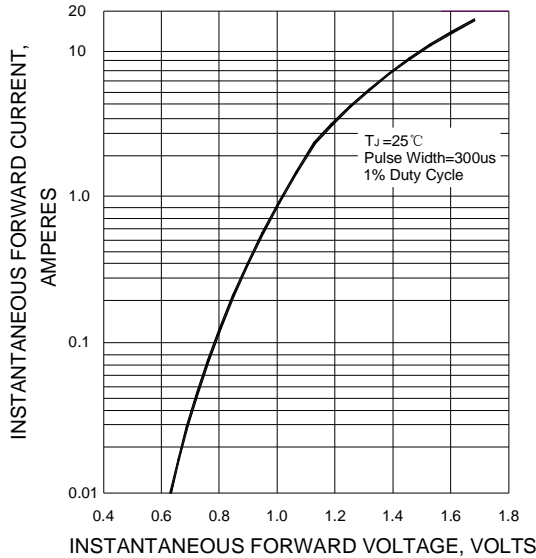
F1G.1-FORWARD CURRENT DERATING CURVE



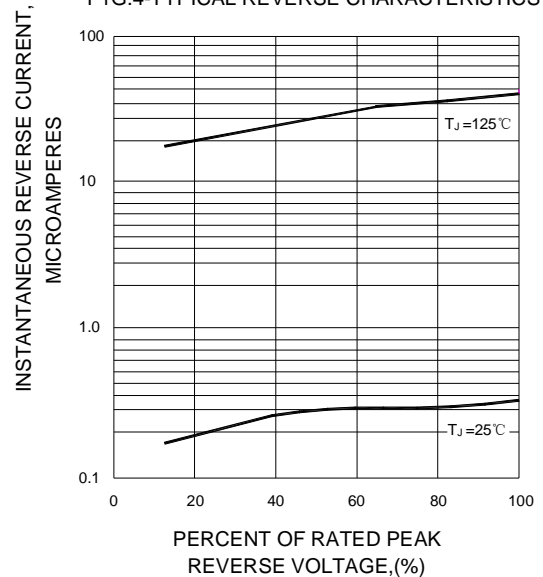
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE

