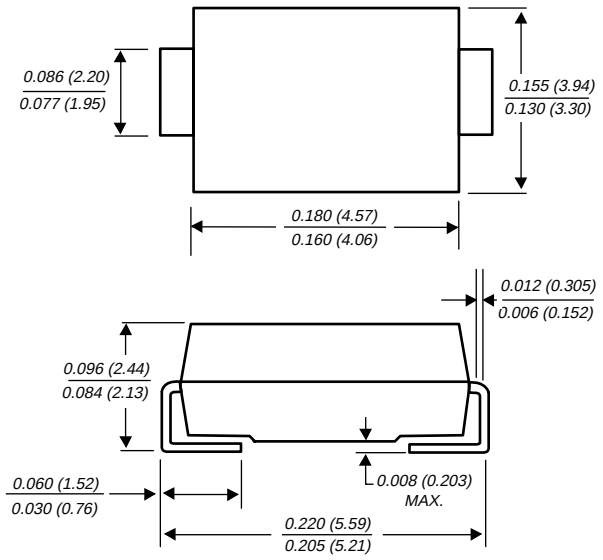
RS2A THRU RS2K

SURFACE MOUNT FAST SWITCHING RECTIFIER

***Reverse Voltage** - 50 to 800 Volts* ***Forward Current** - 1.5 Amperes*

DO-214AA
MODIFIED J-BEND



Dimensions in inches and (millimeters)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mount applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- Glass passivated chip junction
- Fast switching for high efficiency
- High temperature soldering: 250°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic over passivated chip
Terminals: Solder plated solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode band end
Weight: 0.003 ounce, 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	*RS2A*	*RS2B*	*RS2D*	*RS2G*	*RS2J*	*RS2K*	*UNITS*
Device marking code		RA	RB	RD	RG	RJ	RK	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	Volts
Maximum average forward rectified current at T_L=100°C	$I_{(AV)}$	1.5						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0						Amps
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 T_A=125°C	I_R	5.0 200.0						µA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	500	ns
Typical junction capacitance (NOTE 2)	C_J	50.0						pF
Typical thermal resistance (NOTE 3)	$R_{\Theta JA}$ $R_{\Theta JL}$	55.0 18.0						°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to 150						°C

NOTES:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
(3) Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27 x 0.27" (7.0 x 7.0mm) copper pad areas

GENERAL SEMICONDUCTOR®

RATINGS AND CHARACTERISTIC CURVES RS2A THRU RS2K

FIG. 1 - FORWARD CURRENT DERATING CURVE

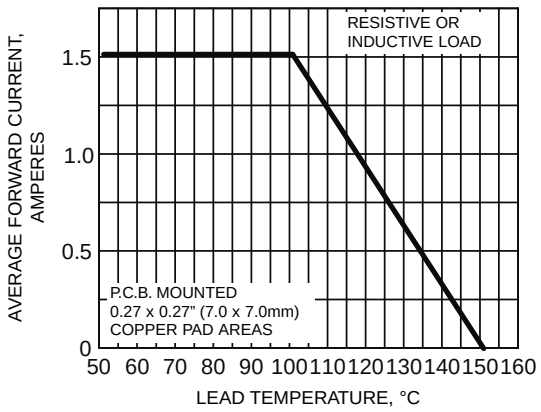


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

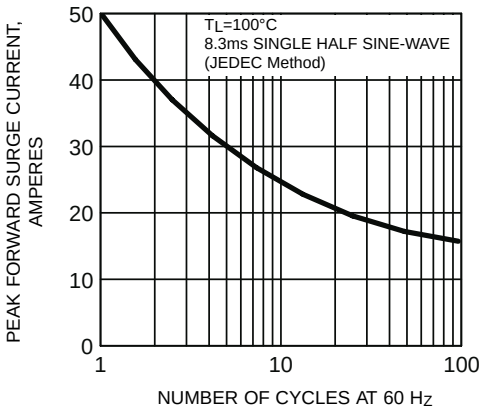


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

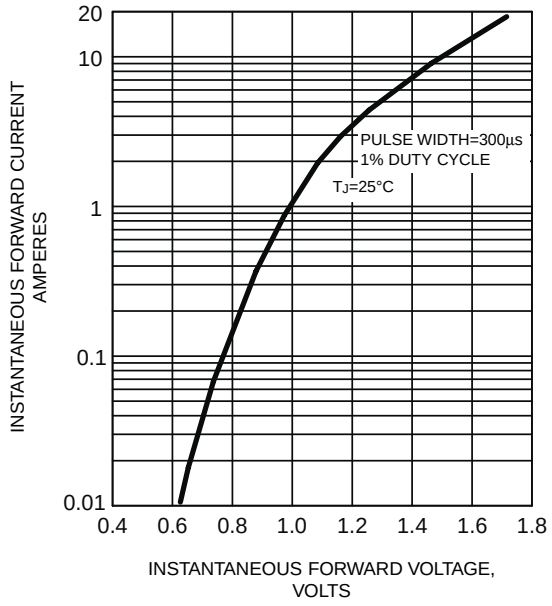


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

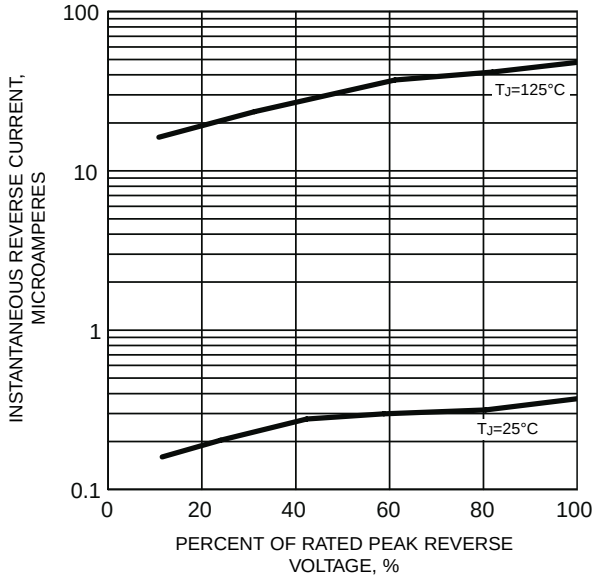
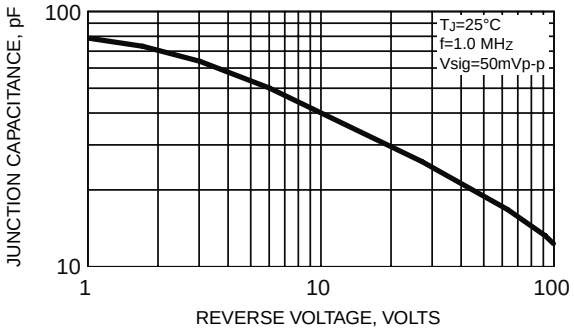


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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