

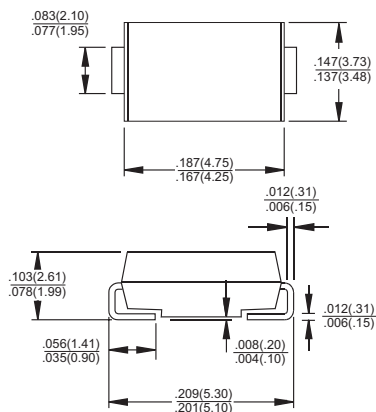


### Features

- ✦ For surface mounted application
- ✦ Glass passivated junction chip
- ✦ Built-in strain relief, ideal for automated placement
- ✦ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✦ Fast switching for high efficiency
- ✦ High temperature soldering: 260 °C / 10 seconds at terminals

### Mechanical Data

- ✦ Cases: Molded plastic
- ✦ Terminals: Pure tin plated, Lead free.
- ✦ Polarity: Indicated by cathode band
- ✦ Packing: 12mm tape per EIA STD RS-481
- ✦ Weight: 0.093 gram



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	RS 2A	RS 2B	RS 2D	RS 2G	RS 2J	RS 2K	RS 2M	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current See Fig. 1 @ $T_J=100^{\circ}C$	$I_{(AV)}$	2.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	50							A
Maximum Instantaneous Forward Voltage @ 2.0A	$V_F$	1.3							V
Maximum DC Reverse Current @ $T_A=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_A=125^{\circ}C$	$I_R$	5 200							$\mu A$ $\mu A$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	150				250	500		nS
Typical Junction Capacitance ( Note 2 )	$C_j$	50							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	55 18							$^{\circ}C / W$
Operating Temperature Range	$T_J$	-55 to +150							$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^{\circ}C$

- Notes:
1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$
  2. Measured at 1 MHz and Applied  $V_R=4.0$  Volts
  3. Thermal Resistance from Junction to Ambient and Junction to Lead Mounted on P.C.B. with 0.4" x 0.4" ( 10mm x 10 mm ) Copper Pad Areas.

## RATINGS AND CHARACTERISTIC CURVES (RS2A THRU RS2M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

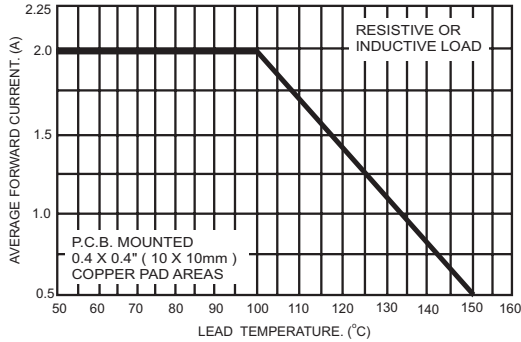


FIG.2- TYPICAL REVERSE CHARACTERISTICS

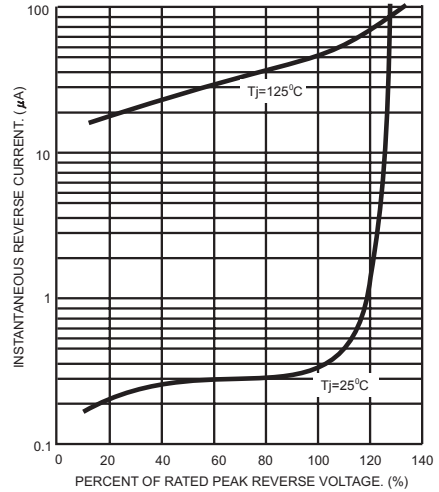


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

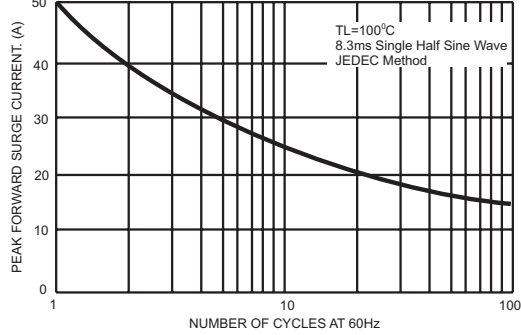


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

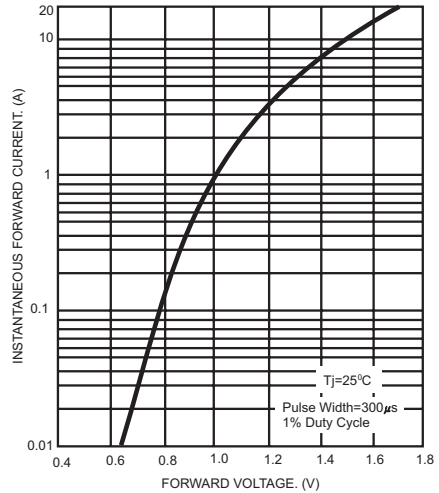


FIG.4- TYPICAL JUNCTION CAPACITANCE

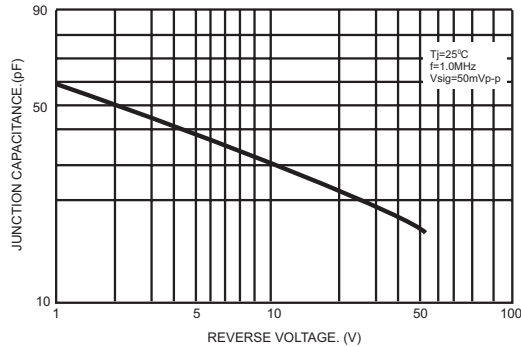


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

