

## SURFACE MOUNT FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **1.5** Amperes

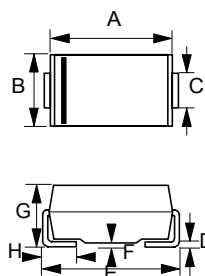
### FEATURES

- Fast switching for high efficiency
- For surface mounted applications
- Glass passivated chip
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0

### MECHANICAL DATA

- Case : Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.002 ounces, 0.064 grams

### SMA



| SMA  |      |      |
|------|------|------|
| DIM. | MIN. | MAX. |
| A    | 4.06 | 4.57 |
| B    | 2.29 | 2.92 |
| C    | 1.27 | 1.63 |
| D    | 0.15 | 0.31 |
| E    | 4.83 | 5.59 |
| F    | 0.05 | 0.20 |
| G    | 2.01 | 2.62 |
| H    | 0.76 | 1.52 |

All Dimensions in millimeter

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

| CHARACTERISTICS  | SYMBOL            | RS2A        | RS2B | RS2D | RS2G | RS2J | RS2K | RS2M | UNIT     |
|--|-------------------|-------------|------|------|------|------|------|------|----------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>  | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V        |
| Maximum RMS Voltage  | V <sub>RMS</sub>  | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V        |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>   | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V        |
| Maximum Average Forward Rectified Current @T <sub>L</sub> = 90°C                                       | I <sub>(AV)</sub> | 1.5         |      |      |      |      |      |      | A        |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)      | I <sub>FSM</sub>  | 50          |      |      |      |      |      |      | A        |
| Maximum forward Voltage at 1.5A DC   | V <sub>F</sub>    | 1.3         |      |      |      |      |      |      | V        |
| Maximum DC Reverse Current @T <sub>J</sub> = 25°C at Rated DC Blocking Voltage @T <sub>J</sub> = 125°C | I <sub>R</sub>    | 5.0<br>200  |      |      |      |      |      |      | uA<br>uA |
| Maximum Reverse Recovery Time (Note 1)   | T <sub>RR</sub>   | 150         |      |      |      | 250  | 500  |      | ns       |
| Typical Junction Capacitance (Note 2)  | C <sub>J</sub>    | 30          |      |      |      |      |      |      | pF       |
| Typical Thermal Resistance (Note 3)  | R <sub>θJL</sub>  | 20          |      |      |      |      |      |      | °C/W     |
| Operating Temperature Range  | T <sub>J</sub>    | -55 to +150 |      |      |      |      |      |      | °C       |
| Storage Temperature Range  | T <sub>STG</sub>  | -55 to +150 |      |      |      |      |      |      | °C       |

NOTES : 1.Reverse Recovery Test Conditions : I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3.Thermal Resistance Junction to Lead .

# RATING AND CHARACTERISTIC CURVES

## RS2A thru RS2M

FIG.1 - FORWARD CURRENT DERATING CURVE

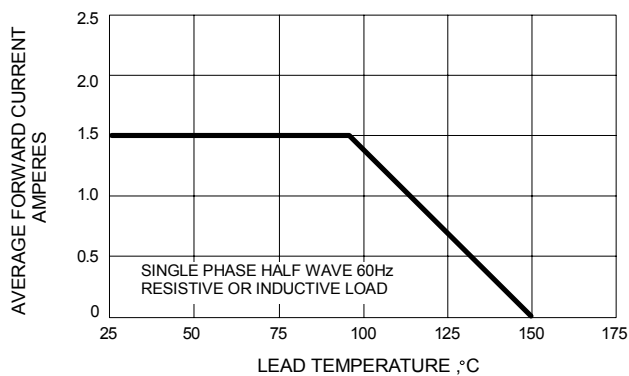


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

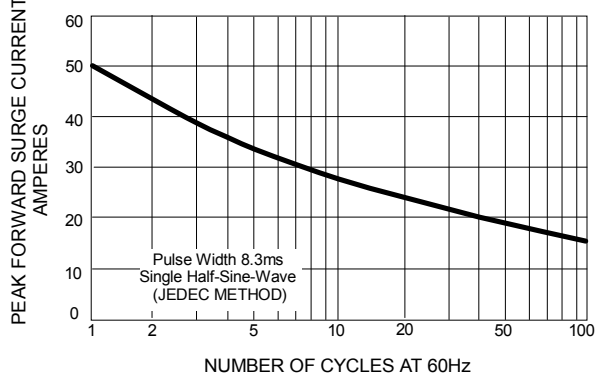


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

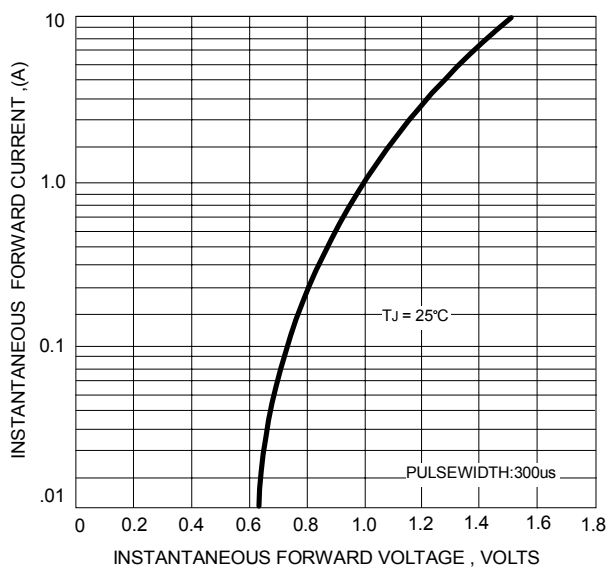


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

