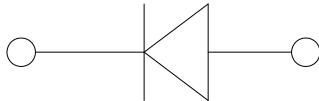
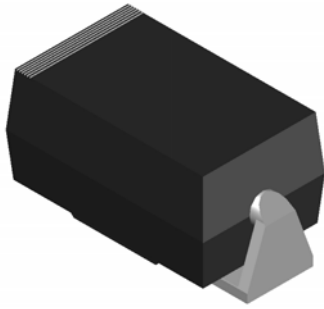


Fast Recovery Rectifier



Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Mechanical Data

- **Package:** SMA-W
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | RS1A | RS1B | RS1D | RS1G | RS1J | RS1K | RS1M |
|--|--------------------|------|-----------|------|------|------|------|------|------|
| Device marking code | | | RS1A | RS1B | RS1D | RS1G | RS1J | RS1K | RS1M |
| Repetitive Peak Reverse Voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Forward Current @60Hz sine wave, Resistance load, T _a =50°C | I _{F(AV)} | A | 1.0 | | | | | | |
| Surge(Non-repetitive)Forward Current @60Hz Half-sine wave, 1 cycle, T _a =25°C | IFSM | A | 30 | | | | | | |
| Storage Temperature | T _{stg} | °C | -55 ~+150 | | | | | | |
| Junction Temperature | T _j | °C | -55~+125 | | | | | | |

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | RS1A | RS1B | RS1D | RS1G | RS1J | RS1K | RS1M |
|---|-------------------|------|---|------|------|------|------|------|------|------|
| Maximum instantaneous forward voltage drop per diode | V _{FM} | V | I _{FM} =1.0A | 1.3 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM1} | μA | T _a =25°C | 2.5 | | | | | | |
| | I _{RRM2} | | T _a =100°C | 100 | | | | | | |
| Reverse Recovery time | t _r | ns | I _F =0.5A I _R =1A I _{RR} =0.25A | 150 | | | 250 | 500 | | |
| Typical junction capacitance | C _j | pF | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C. | 20 | | | | | | |

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | RS1A | RS1B | RS1D | RS1G | RS1J | RS1K | RS1M |
|-----------------------------|-------------------|------|------|------|------|------|------|------|------|
| Thermal Resistance(Typical) | R _{θJ-A} | °C/W | 55 | | | | | | |



RS1A THRU RS1M

Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| RS1A-RS1M | F1 | Approximate 0.067 | 5000 | 10000 | 80000 | Reel |

Characteristics (Typical)

FIG.1: I_o-T_a Curve

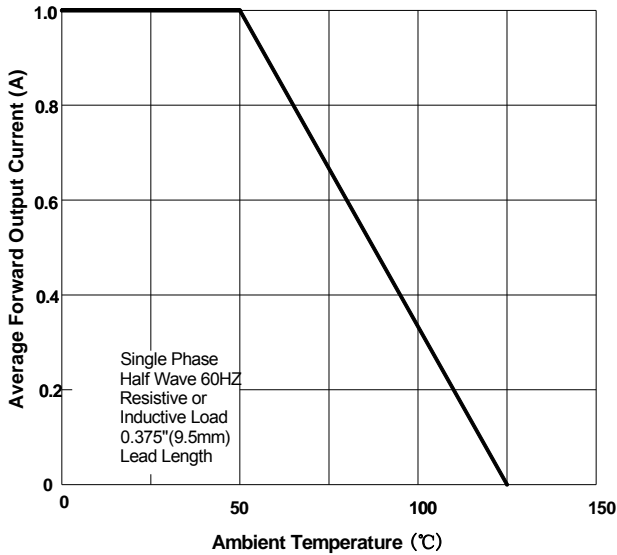


FIG.2: Surge Forward Current Capability

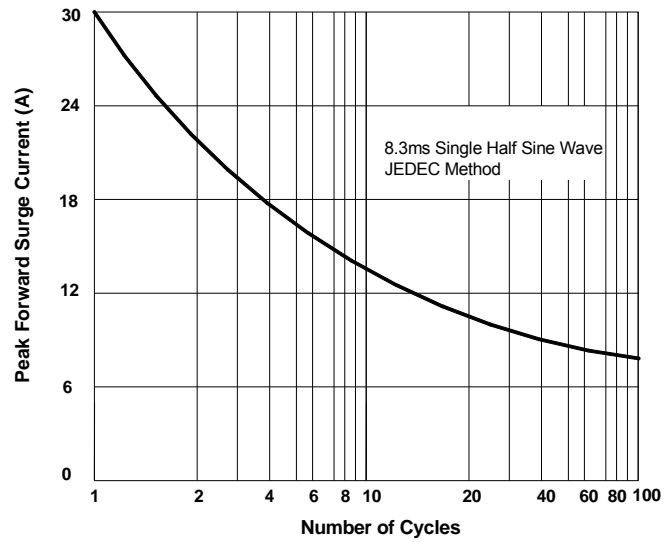


FIG.3: Forward Voltage

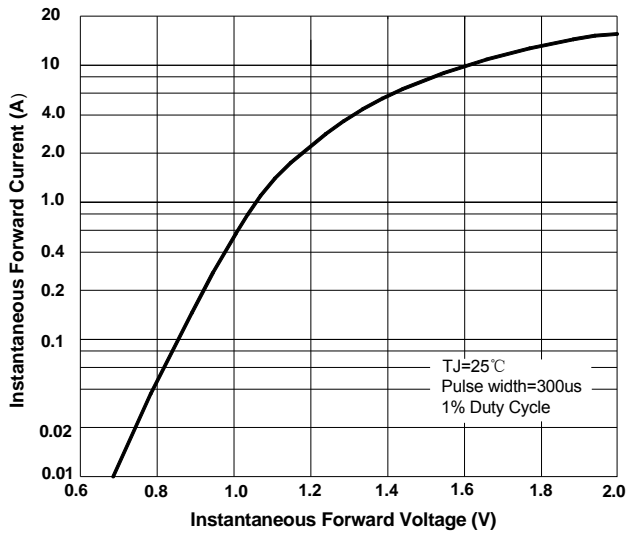


FIG.4: Typical Reverse Characteristics

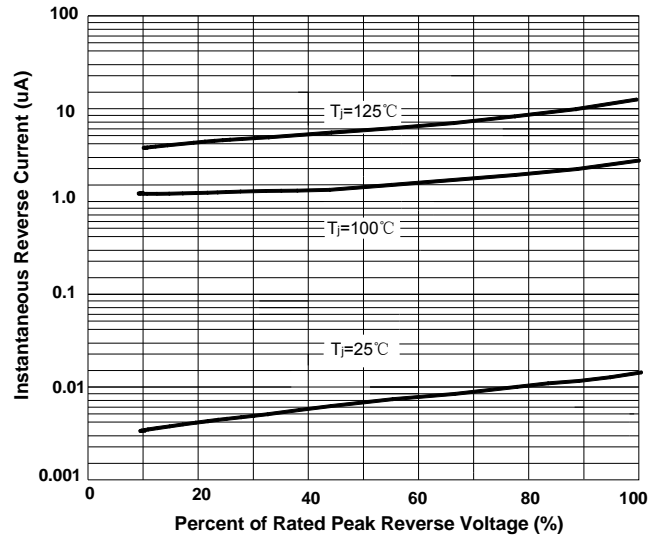
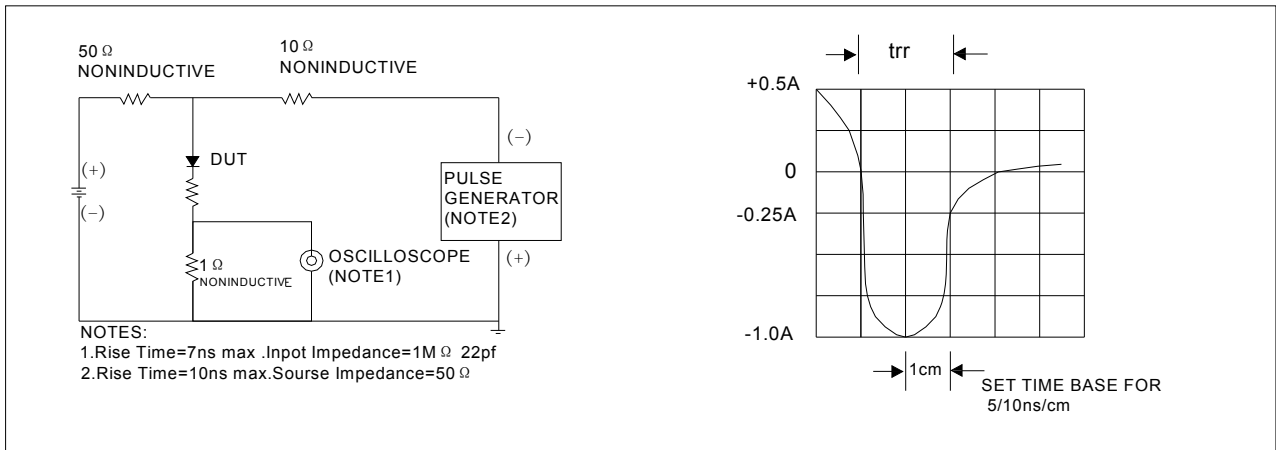
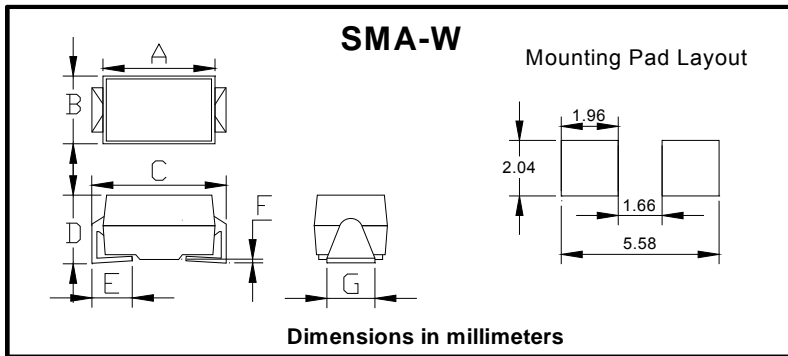


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



| SMA-W | | |
|-------|------|------|
| Dim | Min | Max |
| A | 4.00 | 4.60 |
| B | 2.40 | 2.65 |
| C | 4.80 | 5.31 |
| D | 2.05 | 2.45 |
| E | 0.80 | 1.50 |
| F | 0.10 | 0.20 |
| G | 1.15 | 1.80 |



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