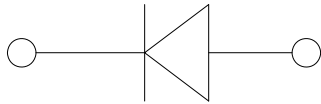
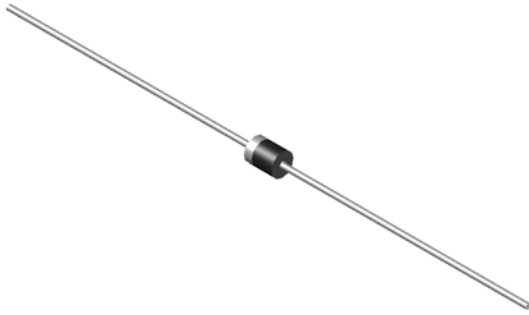




## General Purpose Rectifier



## Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Solder dip 275 °C max. 7 s, per JESD 22-B106

## Mechanical Data

- **Package:** R-1  
Molding compound meets UL 94 V-0 flammability rating,  
RoHS-compliant, Halogen free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

■ Maximum Ratings ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

| PARAMETER                                                                                     | SYMBOL      | UNIT               | 1A1        | 1A2 | 1A3 | 1A4 | 1A5 | 1A6 | 1A7  |
|-----------------------------------------------------------------------------------------------|-------------|--------------------|------------|-----|-----|-----|-----|-----|------|
| Device marking code                                                                           |             |                    | 1A1        | 1A2 | 1A3 | 1A4 | 1A5 | 1A6 | 1A7  |
| Repetitive Peak Reverse Voltage                                                               | VRRM        | V                  | 50         | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Forward Current @60Hz sine wave, Resistance load, $T_a=50^{\circ}\text{C}$            | $I_{F(AV)}$ | A                  | 1.0        |     |     |     |     |     |      |
| Surge(Non-repetitive)Forward Current @ 60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}\text{C}$ | IFSM        | A                  | 30         |     |     |     |     |     |      |
| Storage Temperature                                                                           | Tstg        | $^{\circ}\text{C}$ | -55 ~ +150 |     |     |     |     |     |      |
| Junction Temperature                                                                          | $T_j$       | $^{\circ}\text{C}$ | -55 ~ +125 |     |     |     |     |     |      |

■ Electrical Characteristics ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

| PARAMETER                                                         | SYMBOL     | UNIT          | TEST CONDITIONS                                            | 1A1 | 1A2 | 1A3 | 1A4 | 1A5 | 1A6 | 1A7 |
|-------------------------------------------------------------------|------------|---------------|------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| Maximum instantaneous forward voltage drop per diode              | $V_{FM}$   | V             | $I_{FM}=1.0\text{A}$                                       | 1.0 |     |     |     |     |     |     |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_{RRM1}$ | $\mu\text{A}$ | $T_a=25^{\circ}\text{C}$                                   | 2.5 |     |     |     |     |     |     |
|                                                                   | $I_{RRM2}$ |               | $T_a=100^{\circ}\text{C}$                                  | 50  |     |     |     |     |     |     |
| Typical junction capacitance                                      | $C_j$      | pF            | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C. | 12  |     |     |     |     |     |     |

■ Thermal Characteristics ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

| PARAMETER                   | SYMBOL           | UNIT                 | 1A1 | 1A2 | 1A3 | 1A4 | 1A5 | 1A6 | 1A7 |
|-----------------------------|------------------|----------------------|-----|-----|-----|-----|-----|-----|-----|
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | $^{\circ}\text{C/W}$ | 85  |     |     |     |     |     |     |

## ■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| 1A1~1A7       | D1           | Approximate 0.19 | Approximate 5000     | 5000                    | 50000                      | Tape          |
| 1A1~1A7       | C1           | Approximate 0.19 | Approximate 1000     | 1000                    | 50000                      | Bulk          |



## ■ Characteristics (Typical)

FIG.1:  $I_o$ - $T_a$  Curve

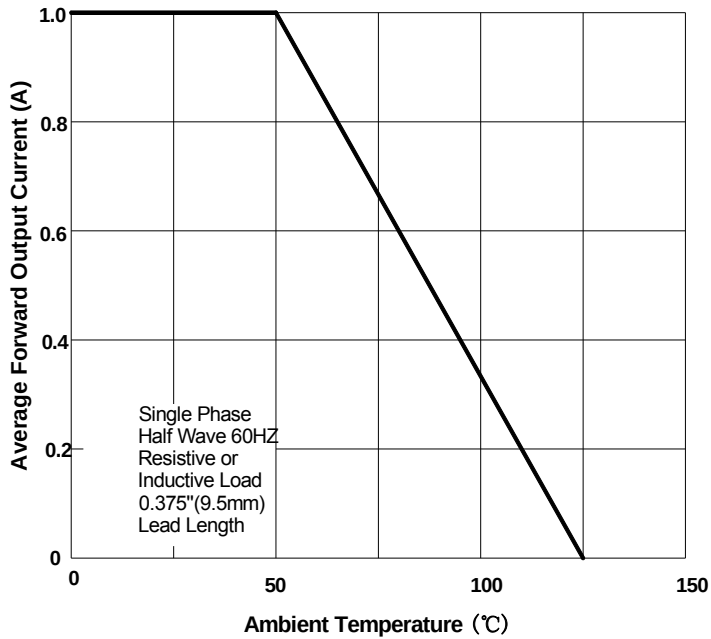


FIG.2: Surge Forward Current Capability

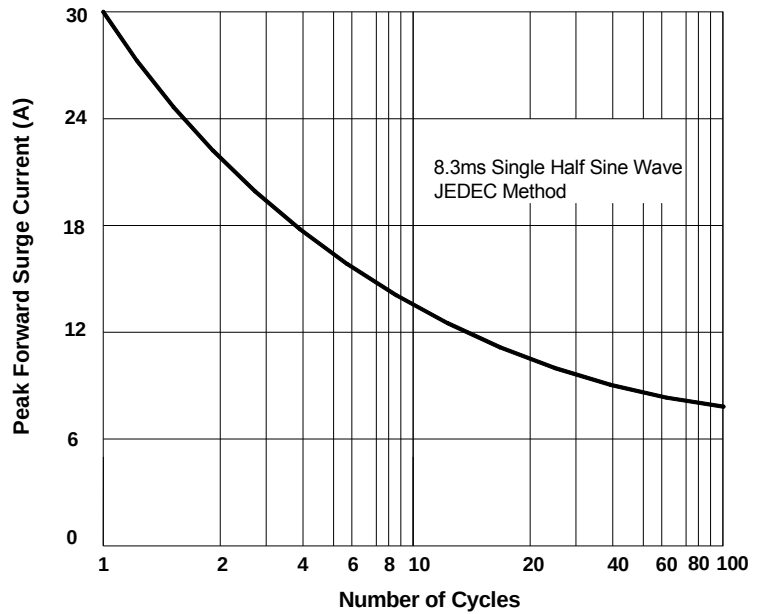


FIG.3: Forward Voltage

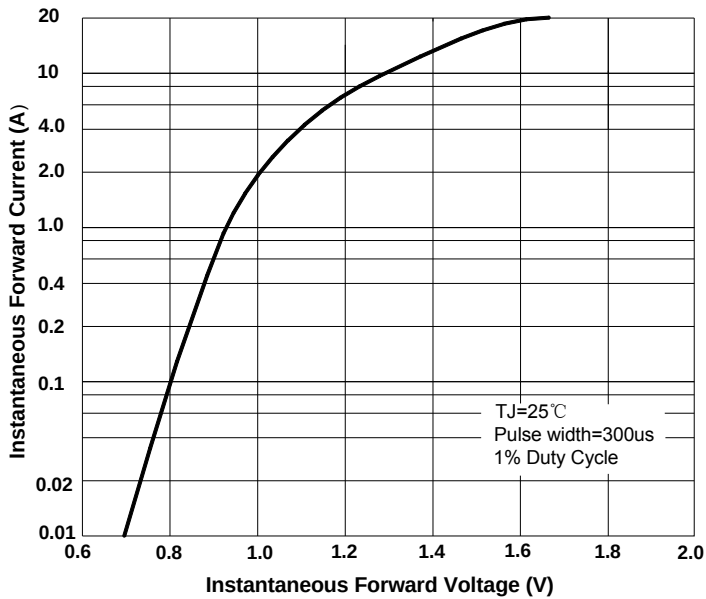
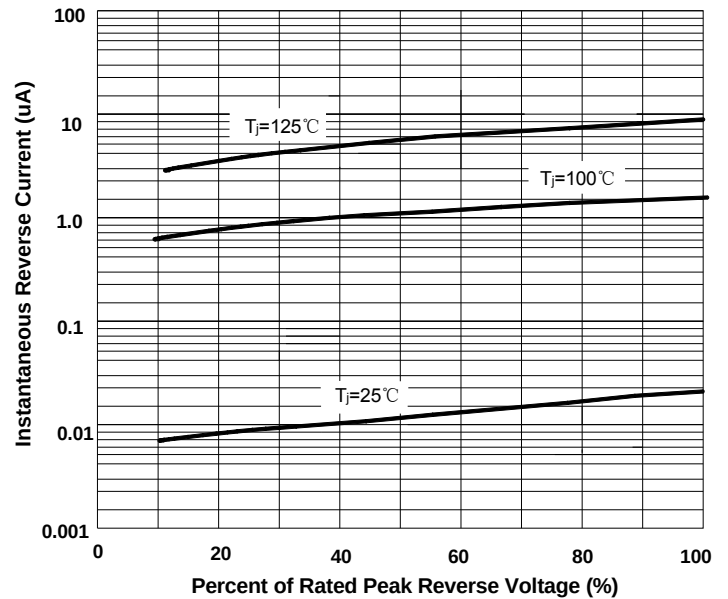
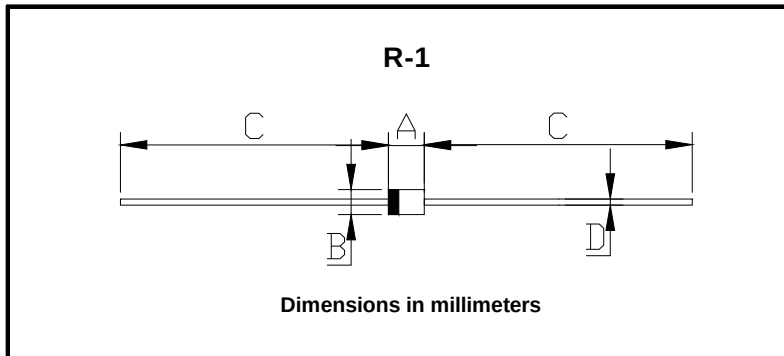


FIG.4: Typical Reverse Characteristics





## ■ Outline Dimensions



| R-1 |      |      |
|-----|------|------|
| Dim | Min  | Max  |
| A   | 3.00 | 3.30 |
| B   | 2.00 | 2.70 |
| C   | 25.4 | /    |
| D   | 0.53 | 0.64 |



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