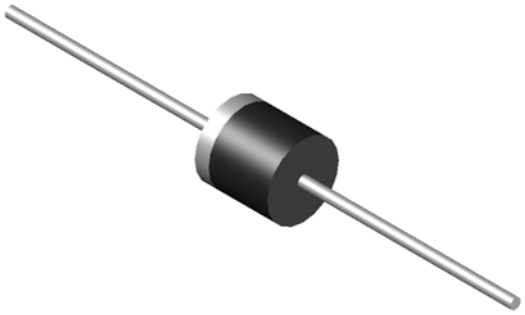
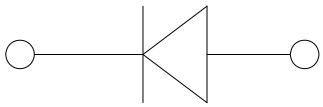
# General Purpose Rectifier





## Features

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

## Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

## Mechanical Data

- **Package**: R-6

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 (Ta=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | 10A05G | 10A1G | 10A2G | 10A4G | 10A6G | 10A8G | 10A10G |
|---|---|---|---|---|---|---|---|---|---|
| Device marking code | | | 10A05G | 10A1G | 10A2G | 10A4G | 10A6G | 10A8G | 10A10G |
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage | $V_{RMS}$ | V | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| Maximum DC blocking Voltage | $V_{DC}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Forward Current @60Hz sine wave, Resistance load, Ta =50℃ | $I_{F(AV)}$ | A | 10.0 | | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃ | $I_{FSM}$ | A | 300 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃ | | | 600 | | | | | | |
| Current squared time @1ms≤t8.3≤ms Tj=25℃，Rating of per diode | $I^2t$ | $A^2s$ | 373.5 | | | | | | |
| Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | Cj | pF | 53 | | | | | | |
| Storage Temperature | $T_{stg}$ | ℃ | -55 ~ +150 | | | | | | |
| Junction Temperature | $T_j$ | ℃ | -55 ~ +150 | | | | | | |

## ■Electrical Characteristics（Ta=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | 10A05G | 10A1G | 10A2G | 10A4G | 10A6G | 10A8G | 10A10G |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | $V_F$ | V | $I_{FM}$=10.0A | 1.1 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_R$ | μA | $T_j$ =25℃ | 2.5 | | | | | | |
| | | | $T_j$ =125℃ | 100 | | | | | | |

## ■Thermal Characteristics （$T_a$=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | 10A05G | 10A1G | 10A2G | 10A4G | 10A6G | 10A8G | 10A10G |
|---|---|---|---|---|---|---|---|---|---|
| Typical Thermal Resistance | $R_{\theta J-A}$ | ℃/W | 10 | | | | | | |

## ■Ordering Information (Example)

| PREFERED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| 10A05G~10A10G | D1 | Approximate 1.95 | 500 | 500 | 5000 | Tape |
| 10A05G~10A10G | C1 | Approximate 1.95 | 100 | 100 | 5000 | Bulk |

## ■ Characteristics (Typical)

FIG.1: Io-Ta Curve

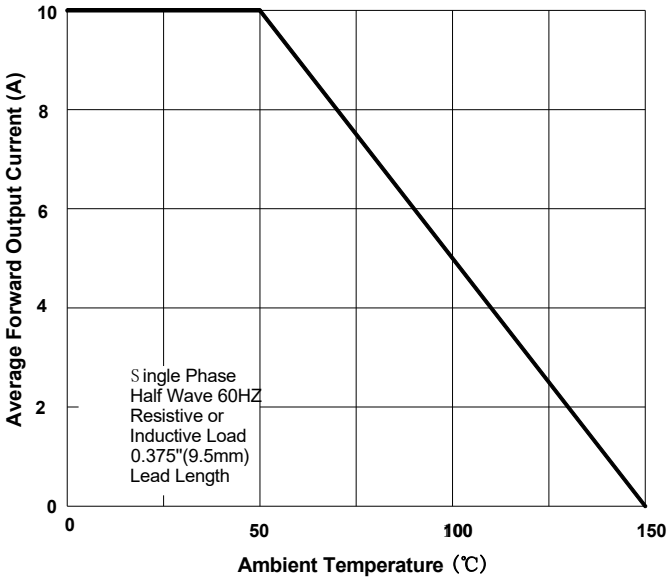



FIG.2: Forward Surge Current Capability

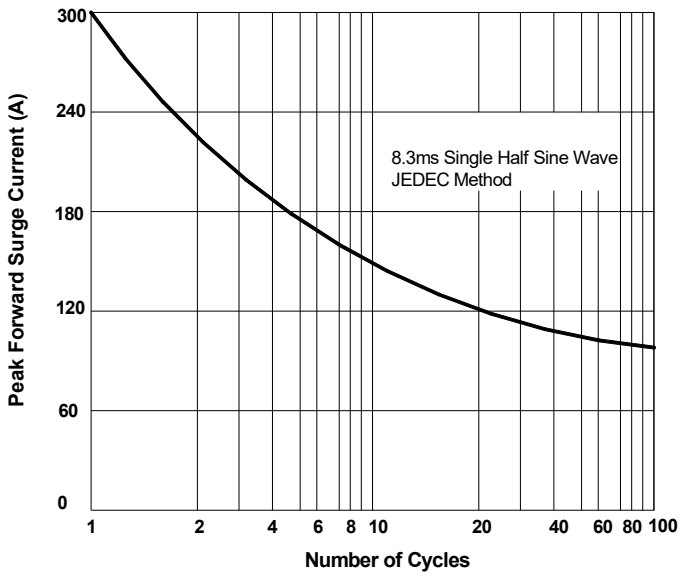



FIG.3: Forward Voltage

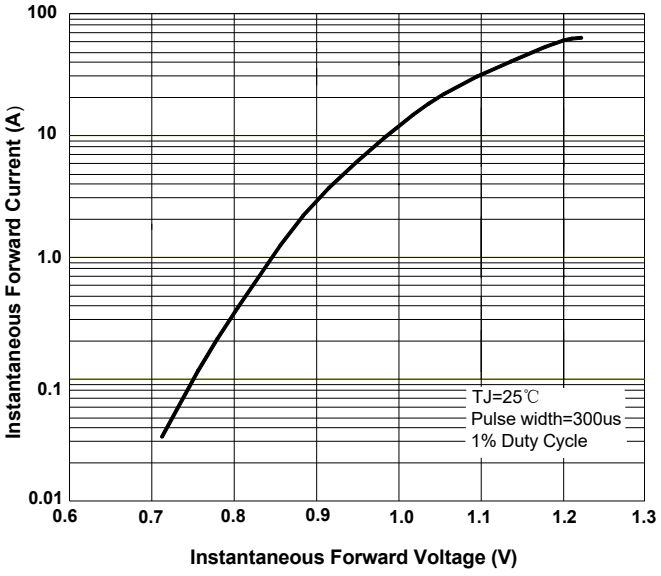
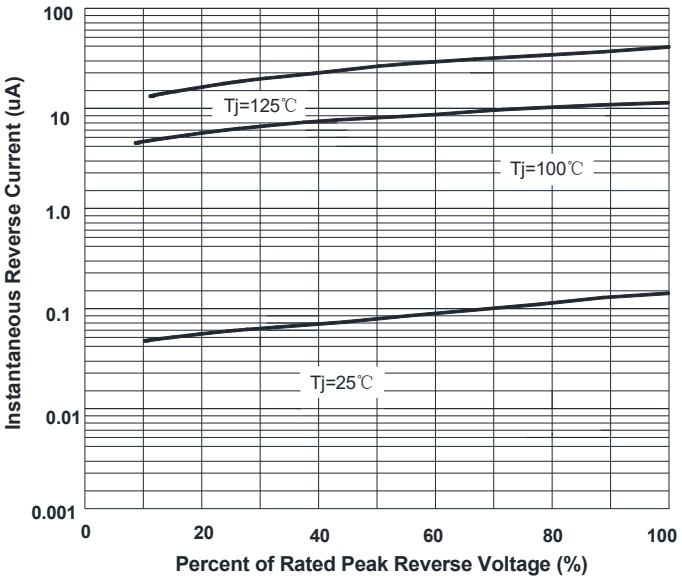
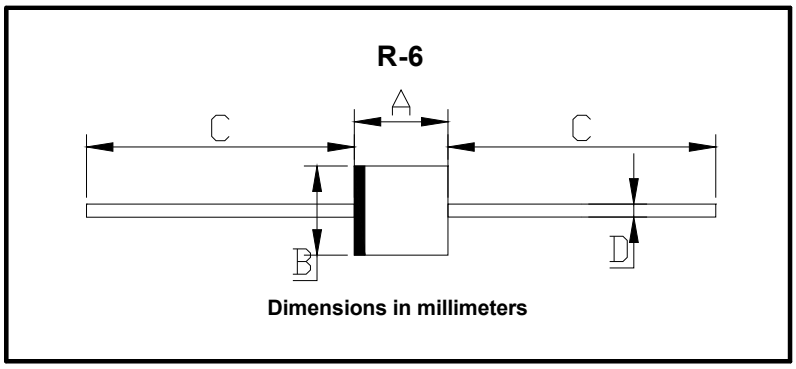



FIG.4: Typical Reverse Characteristics



## ■ Outline Dimensions




| R-6 | | |
|---|---|---|
| Dim | Min | Max |
| A | 8.60 | 9.10 |
| B | 8.60 | 9.10 |
| C | 25.4 | / |
| D | 1.20 | 1.32 |

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