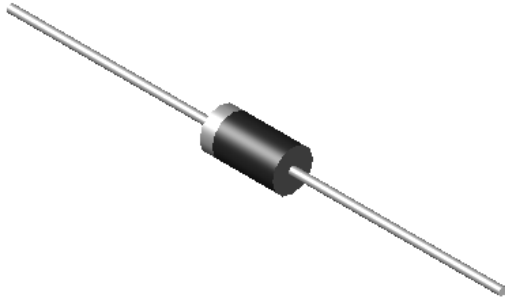


Super Fast Rectifier

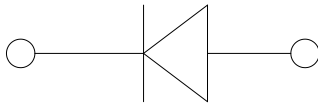


Features

- Ultrafast reverse recovery time
- Low leakage current
- Low switching losses, high efficiency
- High forward surge capability
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer and telecommunication.



Mechanical Data

- **Package:** DO-201AD(DO-27)
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 the cathode end

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

| PARAMETER | SYMBOL | UNIT | MUR420 | MUR440 | MUR460 | MUR480 | MUR4100 |
|---|--------------------|------|-----------|--------|--------|--------|---------|
| Device marking code | | | MUR420 | MUR440 | MUR460 | MUR480 | MUR4100 |
| Repetitive Peak Reverse Voltage | V _{RRM} | V | 200 | 400 | 600 | 800 | 1000 |
| Average Forward Current @60Hz sine wave, Resistance load, T _a =50°C | I _{F(AV)} | A | 4.0 | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _a =25°C | I _{FSM} | A | 125 | | | | |
| Storage Temperature | T _{stg} | °C | -55 ~+150 | | | | |
| Junction Temperature | T _j | °C | -55~+150 | | | | |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | MUR420 | MUR440 | MUR460 | MUR480 | MUR4100 |
|---|----------------|------|---|--------|--------|--------|--------|---------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =4.0A | 0.89 | 1.28 | | 1.85 | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _R | μA | T _a =25°C | 5 | | | | |
| | | | T _a =100°C | 150 | | | | |
| Reverse Recovery time | t _r | ns | I _F =0.5A I _R =1A I _{RR} =0.25A | 25 | 50 | | 75 | |
| Typical junction capacitance | C _j | pF | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C. | 70 | | | | |



MUR420 THRU MUR4100

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

| PARAMETER | SYMBOL | UNIT | MUR420 | MUR440 | MUR460 | MUR480 | MUR4100 | |
|--------------------|------------------|--------------------|--------|--------|--------|--------|---------|--|
| Thermal Resistance | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | 20 | | | | | |

■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| MUR420-MUR4100 | D1 | Approximate 1.05 | 1250 | 1250 | 12500 | Tape |
| MUR420-MUR4100 | C1 | Approximate 1.05 | 250 | 250 | 12500 | Bulk |

■ Characteristics (Typical)

FIG.1: I_o - T_a Curve

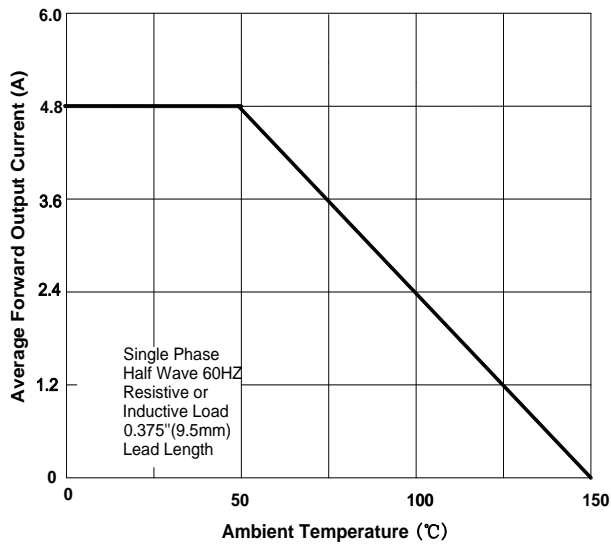


FIG.2: Forward Surge Current Capability

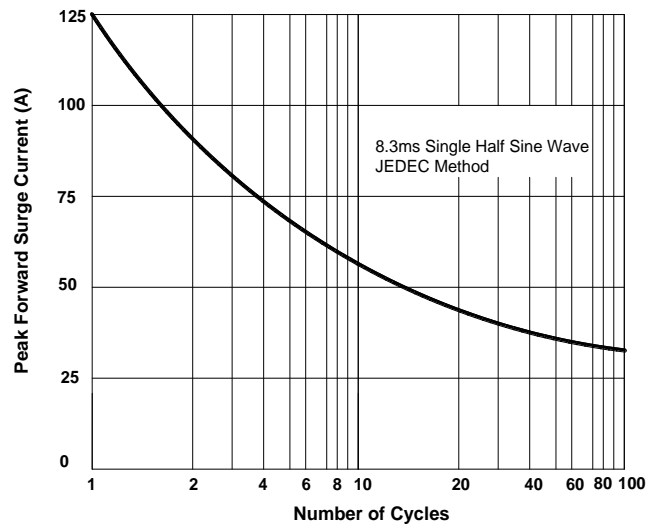


FIG.3: Forward Voltage

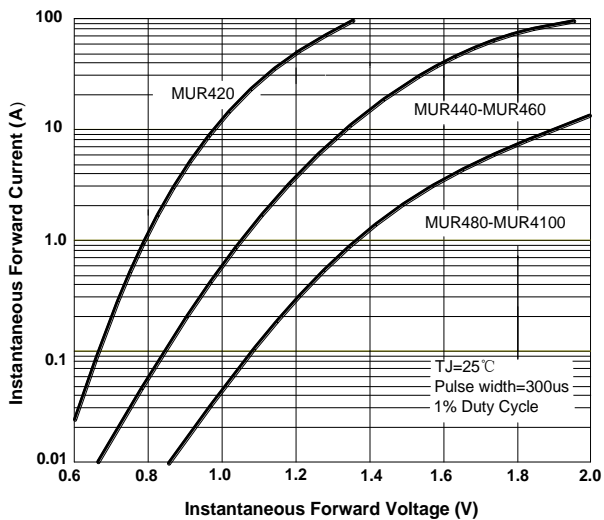
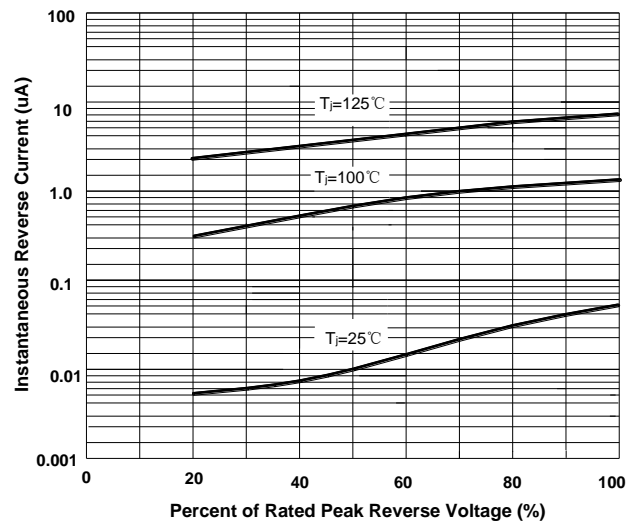


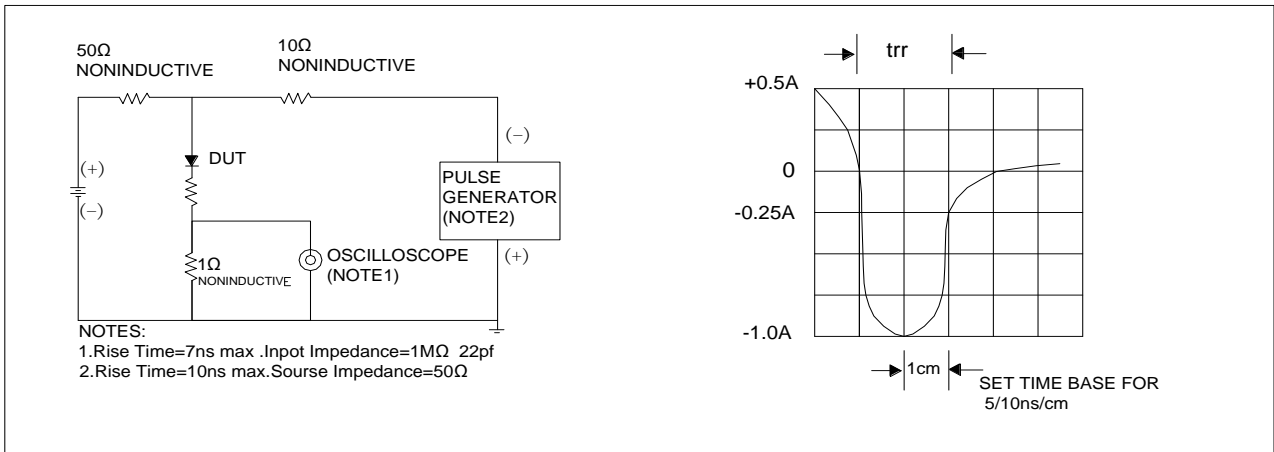
FIG.4: Typical Reverse Characteristics



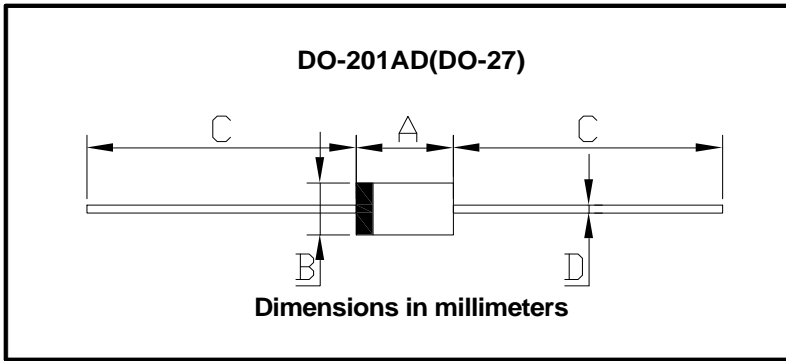


MUR420 THRU MUR4100

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



■ Outline Dimensions



| DO-201AD(DO-27) | | |
|-----------------|------|------|
| Dim | Min | Max |
| A | 8.50 | 9.50 |
| B | 5.00 | 5.60 |
| C | 25.4 | / |
| D | 1.20 | 1.30 |



MUR420 THRU MUR4100

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