

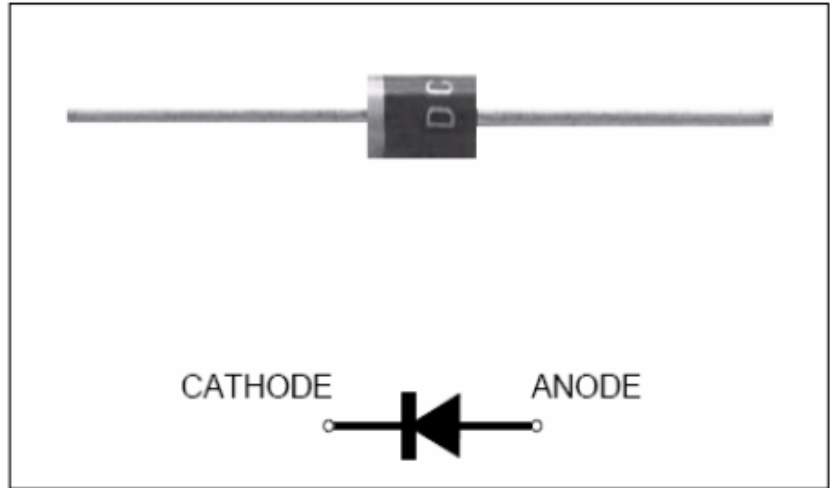
FR301G thru FR307G

1.Feature & Dimensions

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High temperature metallurgically bonded construction
- * Cavity-free glass passivated junction
- * Capable of meeting environmental standards of MIL-S-19500
- * 3.0 A operation at TA=55°C with no thermal runaway
- * For use in high frequency rectifier circuits
- * Fast switching for high efficiency
- * Typical IR less than 1.0μA
- * High temperature soldering guaranteed: 260°C/10 seconds
- * 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Glass Passivated Junction Fast Switching Rectifiers

Reverse Voltage 50 to 1000V
Forward Current 3.0A



2.Mechanical Data

Case: JEDEC DO-201AD, molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.038 oz., 1.03 g

Handling precaution: None

3.Electrical Characteristic

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter Symbol | symbol | FR 301G | FR 302G | FR 303G | FR 304G | FR 305G | FR30 5PG | FR 306G | FR 307G | FR30 7PG | Unit |
|---|-----------------|-------------|---------|---------|---------|---------|----------|---------|---------|----------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 600 | 800 | 1000 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 420 | 560 | 700 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 600 | 800 | 1000 | 1000 | V |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 55^\circ\text{C}$ | $I_{F(AV)}$ | 3.0 | | | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 150 | | | | | | | | | A |
| Maximum full load reverse current, full cycle average, 0.375"(9.5mm) lead lengths at $T_A = 55^\circ\text{C}$ | $I_{R(AV)}$ | 100 | | | | | | | | | μA |
| Typical thermal resistance (Note 2) | $R_{\theta JA}$ | 55 | | | | | | | | | °C/W |
| Operating junction and storage temperature range | T_J, T_{STG} | -50 to +150 | | | | | | | | | °C |

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter Symbol | symbol | FR 301G | FR 302G | FR 303G | FR 304G | FR 305G | FR30 5PG | FR 306G | FR 307G | FR30 7PG | Unit |
|--|----------|-------------|---------|---------|---------|---------|----------|---------|---------|----------|------|
| Maximum instantaneous forward voltage at 3.0A | V_F | 1.3 | | | | | | | | | V |
| Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$ | I_R | 10.0 200 | | | | | | | | | μA |
| Typical reverse recovery time (Note 1) | t_{rr} | 150 | | | 250 | 150 | 500 | 250 | | | ns |
| Typical junction capacitance at 4.0V, 1MHz | C_J | 60 | | | | | | | | | PF |

NOTES:

1. $I_F = 0.5A$, $I_R = 1.0A$, $IRR = 0.25A$
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

4. Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

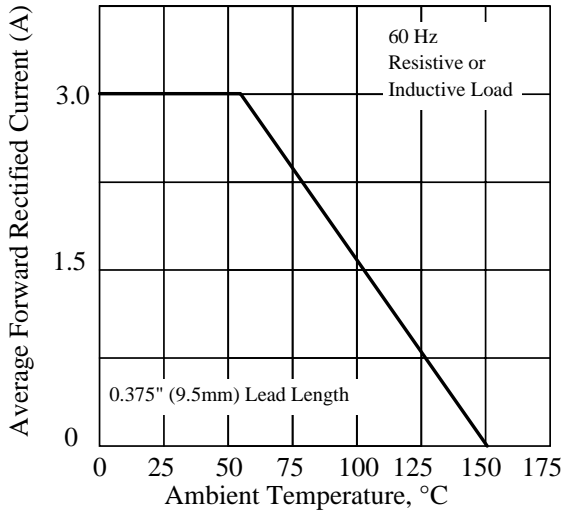


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

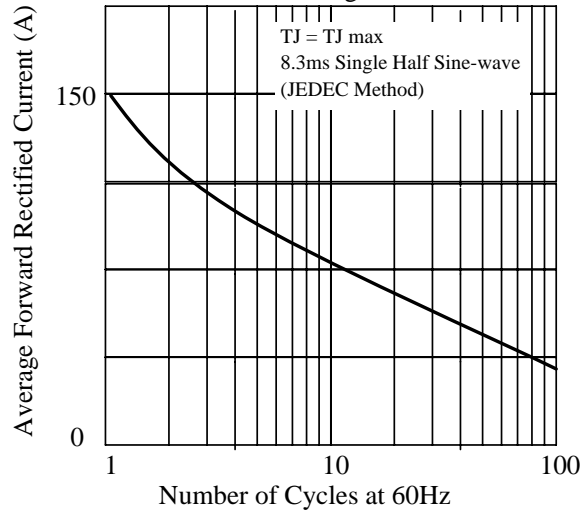


Fig. 3. - Typical Instantaneous Forward Characteristics

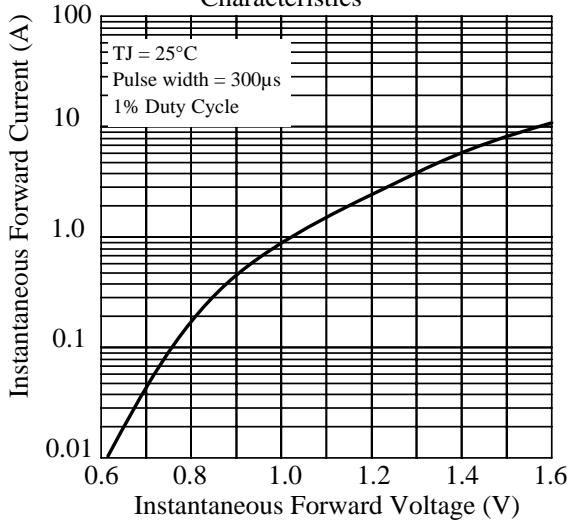


Fig. 4. - Typical Reverse Characteristics

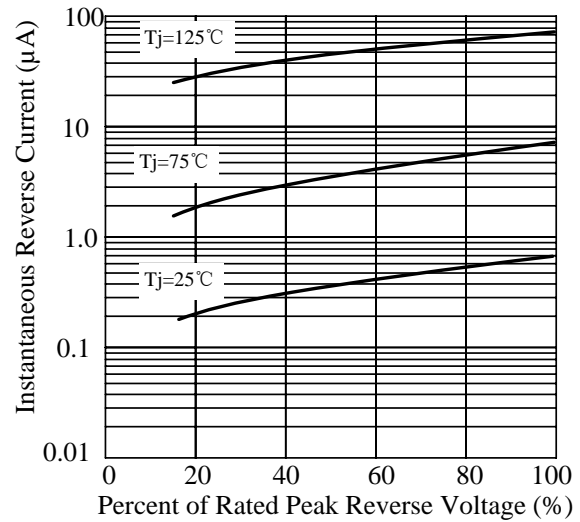


Fig. 5. - typical transient thermal impedance

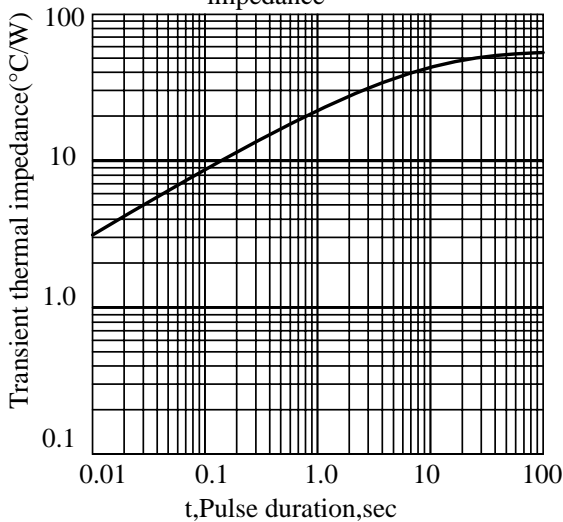
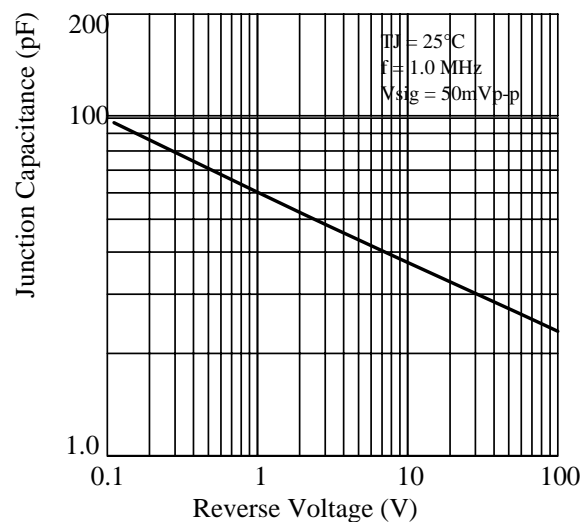
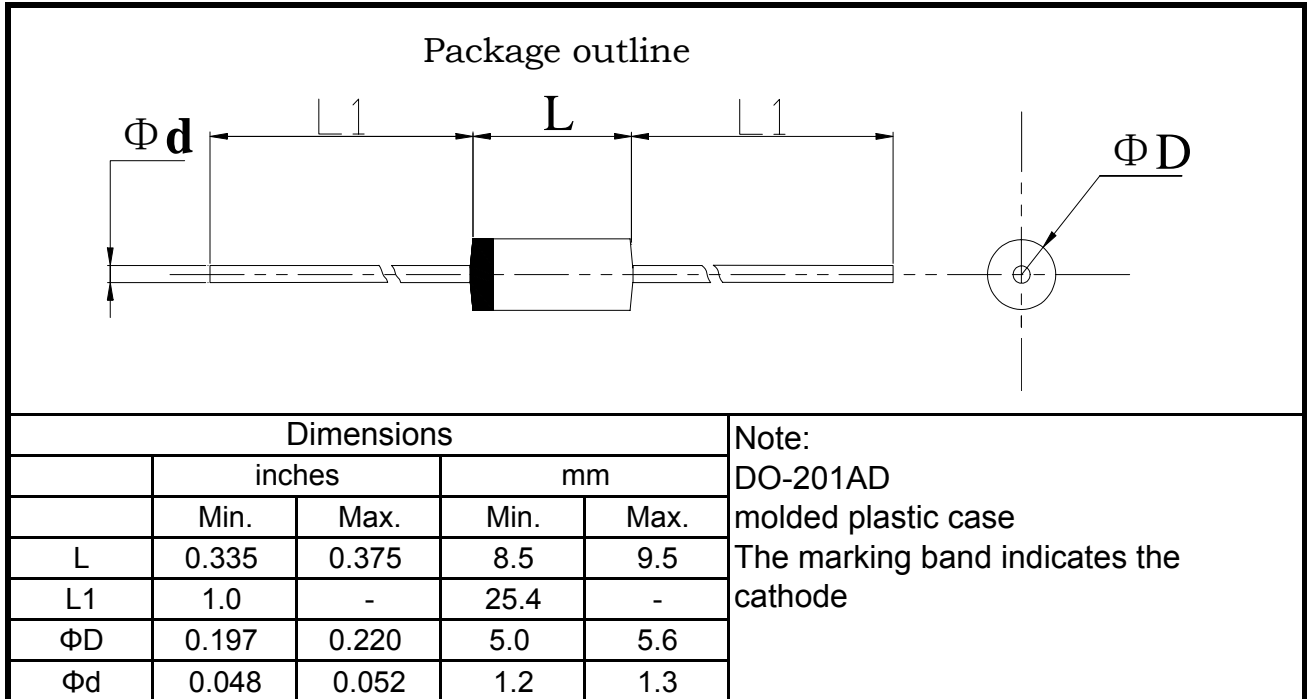


Fig. 6. - Typical Junction Capacitance



5.Package Dimensions in inches and (millimeters)


单击下面可查看定价，库存，交付和生命周期等信息

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