

**FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- 2.0 Ampere operation at  $T_A=55^\circ\text{C}$  with no thermal runaway
- Typical  $I_R$  less than  $0.1\mu\text{A}$

**MECHANICAL DATA**

**Case:** JEDEC DO-204AC, molded plastic over glass passivated chip

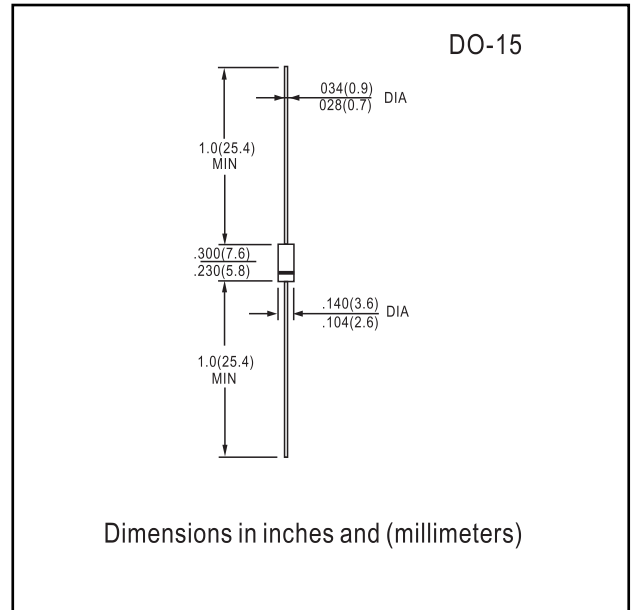
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed:  $250^\circ\text{C}/10$  seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.015 oz., 0.4 g



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

**Maximum Ratings & Thermal Characteristics** Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

| Parameter   | Symbol                             | GPP 20A     | GPP 20B | GPP 20D | GPP 20G | GPP 20J | GPP 20K | GPP 20M | Unit                      |
|---|------------------------------------|-------------|---------|---------|---------|---------|---------|---------|---------------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$                          | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                         |
| Maximum RMS voltage   | $V_{RMS}$                          | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V                         |
| Maximum DC blocking voltage   | $V_{DC}$                           | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                         |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$   | $I_{F(AV)}$                        | 2.0         |         |         |         |         |         |         | A                         |
| Peak forward surge current 8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method) | $I_{FSM}$                          | 70          |         |         |         |         |         |         | A                         |
| Typical thermal resistance <sup>(1)</sup>   | $R_{\theta JA}$<br>$R_{\theta JL}$ | 25<br>20    |         |         |         |         |         |         | $^\circ\text{C}/\text{W}$ |
| Operating junction and storage temperature range  | $T_J, T_{STG}$                     | -55 to +150 |         |         |         |         |         |         | $^\circ\text{C}$          |

**Electrical Characteristics** Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

| Parameter  | Symbol | GPP 20A   | GPP 20B | GPP 20D | GPP 20G | GPP 20J | GPP 20K | GPP 20M | Unit          |
|--|--------|-----------|---------|---------|---------|---------|---------|---------|---------------|
| Maximum instantaneous forward voltage at 2.0A  | $V_F$  | 1.1       |         |         |         |         |         |         | V             |
| Maximum reverse current<br>$T_A = 25^\circ\text{C}$<br>at rated DC blocking voltage<br>$T_A = 100^\circ\text{C}$ | $I_R$  | 5.0<br>50 |         |         |         |         |         |         | $\mu\text{A}$ |
| Maximum junction capacitance at 4.0V, 1MHz   | $C_J$  | 25        |         |         |         |         |         |         | pF            |

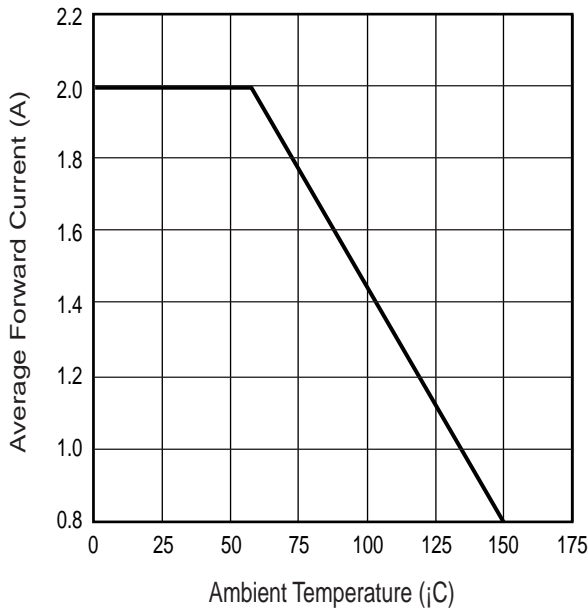
Note: (1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted



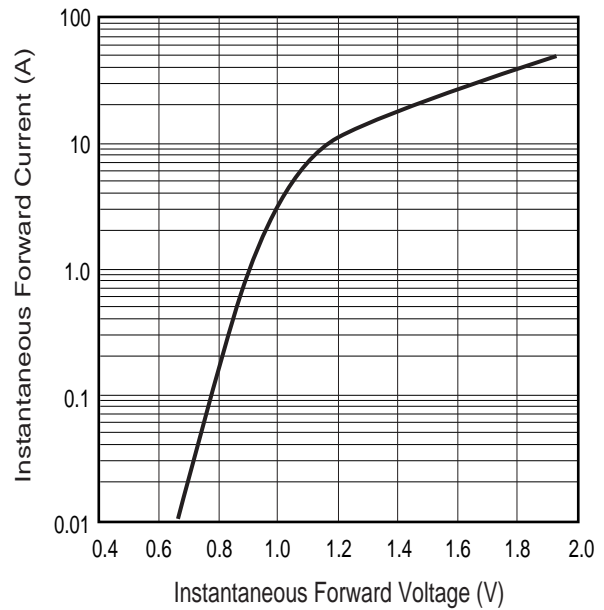


**RATINGS AND CHARACTERISTIC CURVES GPP20A THRU GPP20M**

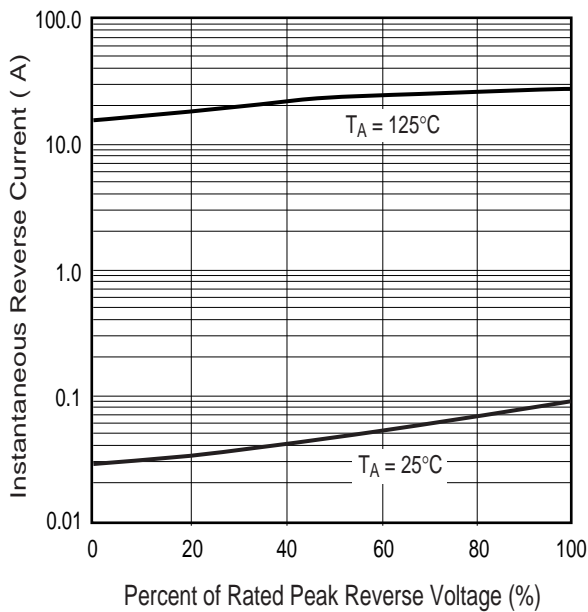
**Fig. 1 – Forward Current Derating Curve**



**Fig. 2 – Typical Instantaneous Forward Characteristics**



**Fig. 3 – Typical Reverse Characteristics**



**Fig. 4 – Typical Junction Capacitance**

