

POWER DISCRETES

Description

Quick reference data

$$V_R = 800 - 1000V$$

$$I_F = 1.0A$$

$$t_{rr} = 75nS$$

$$I_R = 1\mu A$$

Features

- ◆ Very low reverse recovery time
- ◆ Glass passivated for hermetic sealing
- ◆ Low switching losses
- ◆ Soft, non-snap off, recovery characteristics
- ◆ Avalanche capability

Absolute Maximum Ratings

Electrical specifications @ $T_A = 25^\circ C$ unless otherwise specified.

| | Symbol | PFF8 | PFF0 | Units |
|--|-------------|-------------|------|------------|
| Working Reverse Voltage | V_{RWM} | 800 | 1000 | V |
| Average Forward Current @ $55^\circ C$, lead length 0.375" | $I_{F(AV)}$ | 1.0 | | A |
| Repetitive Surge Current @ $55^\circ C$ in free air, lead length 0.375" | I_{FRM} | 4.25 | | A |
| Non-Repetitive Surge Current ($t_p = 8.3mS$ @ V_R & T_{JMAX}) | I_{FSM} | 22.0 | | A |
| Storage Temperature Range | T_{STG} | -55 to +175 | | $^\circ C$ |

POWER DISCRETES
Electrical Specifications

| | Symbol | PFF8 | PFF0 | Units |
|---|----------------------------|------------|------|---------------|
| Average Forward Current max ($T_L = 55^\circ\text{C}$; $L = 3/8''$) for sine wave for square wave | $I_{F(AV)}$ $I_{F(AV)}$ | 1.0 1.0 | | A |
| Forward Voltage Drop typ. @ $I_F = 1.0\text{A}$, $T_j = 25^\circ\text{C}$ | V_F | 2.1 | | V |
| Reverse Current typ. @ V_{RWM} , $T_j = 25^\circ\text{C}$ @ V_{RWM} , $T_j = 100^\circ\text{C}$ | I_R I_R | 1 20 | | μA |
| Reverse Recovery Time max. 0.5A I_F to 1.0A I_{RM} recovers to 0.25A $I_{RM(REC)}$ | trr | 75 | | nS |
| Junction Capacitance typ. @ $V_R = 5\text{V}$, $f = 1\text{MHz}$ | Cj | 30 | | pF |

Thermal Characteristics

| | Symbol | PFF8, PFF0 | Units |
|---|-----------------|------------|--------------------|
| Thermal Resistance-Junction to Lead Lead length = 0.375" | $R_{\theta JL}$ | 47 | $^\circ\text{C/W}$ |

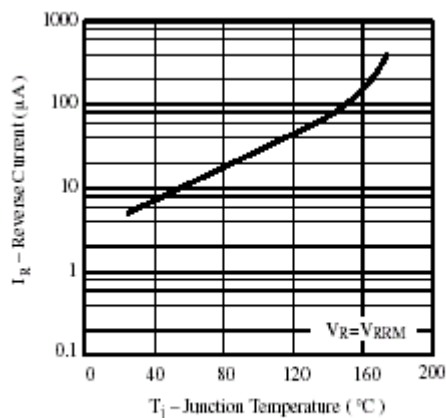
Maximum Characteristics


Figure 1. Max. Reverse Current vs. Junction Temperature

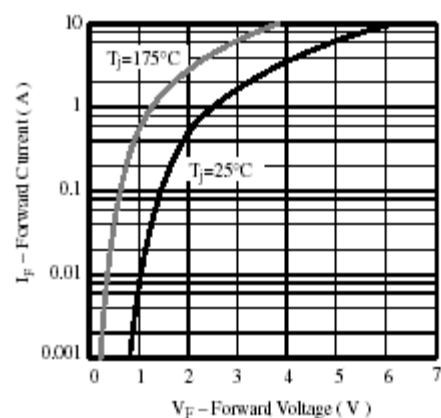


Figure 2. Max. Forward Current vs. Forward Voltage

POWER DISCRETES

Maximum Characteristics (Cont.)

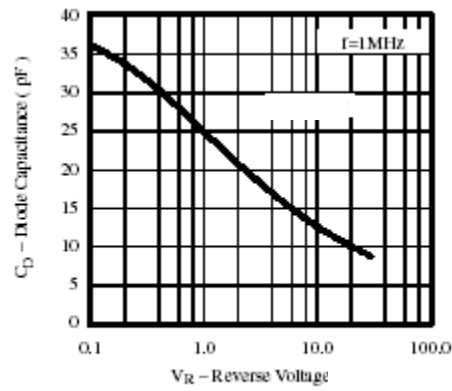


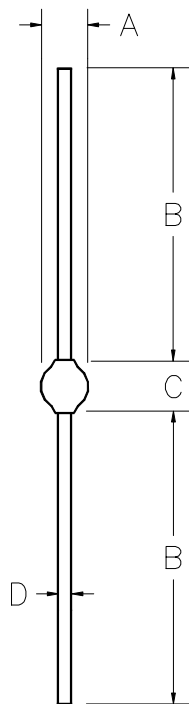
Figure 3. Diode Capacitance vs. Reverse Voltage

POWER DISCRETES
Ordering Information

| Part Number | Description |
|-------------|---|
| PFF8, PFF0 | Axial leaded hermetically sealed ⁽¹⁾ |

Note:

(1) Available in bulk and tape and reel packaging. Please consult factory for quantities.

Outline Drawing


| Dimensions | | | | | |
|------------------|--------|-------|-------------|------|------|
| DIM ^N | Inches | | Millimeters | | Note |
| | MIN | MAX | MIN | MAX | |
| A | - | .150 | - | 3.81 | - |
| B | 1.02 | - | 26 | - | - |
| C | - | .180 | - | 4.57 | - |
| D | - | 0.032 | - | 0.82 | - |

Weight = 0.013oz