

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°C, lead length 0.375"	$I_{F(AV)}$	1.0		A
Repetitive Surge Current @ 55°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		°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

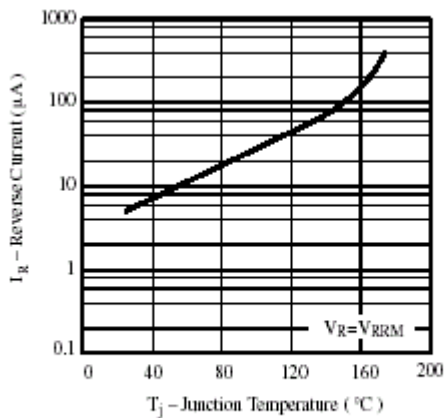


Figure 1. Max. Reverse Current vs. Junction Temperature

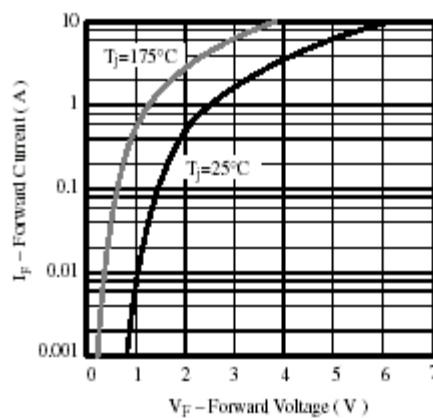


Figure 2. Max. Forward Current vs. Forward Voltage

POWER DISCRETES

Maximum Characteristics (Cont.)

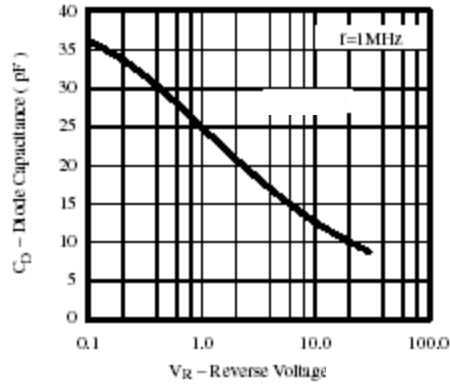


Figure 3. Diode Capacitance vs. Reverse Voltage

POWER DISCRETES

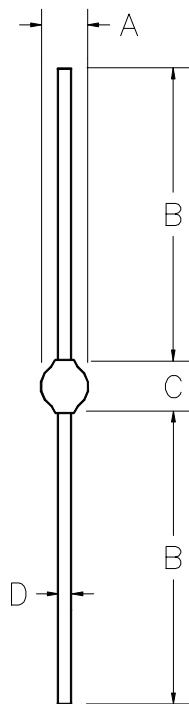
Ordering Information

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

Contact Information

Semtech Corporation
 Power Discrettes Products Division
 200 Flynn Road, Camarillo, CA 93012
 Phone: (805)498-2111 FAX (805)498-3804