

POWER DISCRETES

Description

Quick reference data

$$V_R = 800 - 1000V$$

$$I_F = 3.0A$$

$$t_{rr} = 75nS$$

$$I_R = 2\mu A$$

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	2PFF8	2PFF0	Units
Working Reverse Voltage	V_{RWM}	800	1000	V
Average Forward Current @ 55°C, lead length 0.375"	$I_{F(AV)}$	3.0		A
Repetitive Surge Current @ 55°C in free air, lead length 0.375"	I_{FRM}	9.0		A
Non-Repetitive Surge Current ($t_p = 8.3mS @ V_R \& T_{JMAX}$)	I_{FSM}	45.0		A
Storage Temperature Range	T_{STG}	-55 to +175		°C

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Electrical Specifications

	Symbol	2PFF8	2PFF0	Units
Average Forward Current max (pcb mounted; $T_A = 55^\circ\text{C}$)	$I_{F(AV)}$	1.0		A
Average Forward Current max ($T_L = 55^\circ\text{C}$; $L = 3/8"$)	$I_{F(AV)}$	3.0		A
I^2t for fusing ($t = 8.3\text{mS}$) max	I^2t	8.4		A^2S
Forward Voltage Drop max. @ $I_F = 3.0\text{A}$, $T_j = 25^\circ\text{C}$	V_F	1.7		V
Reverse Current max. @ V_{RWM} , $T_j = 25^\circ\text{C}$ @ V_{RWM} , $T_j = 100^\circ\text{C}$	I_R I_R	2 50		μA
Reverse Recovery Time max. $0.5\text{A } I_F$ to $1.0\text{A } I_{RM}$ recovers to $0.25\text{A } I_{RM(REC)}$	t_{rr}	75		nS
Junction Capacitance typ. @ $V_R = 5\text{V}$, $f = 1\text{MHz}$	C_j	40		pF

Thermal Characteristics

	Symbol	2PFF8, 2PFF0	Units
Thermal Resistance-Junction to Lead Lead length = $0.375"$	$R_{\theta JL}$	26	$^\circ\text{C}/\text{W}$

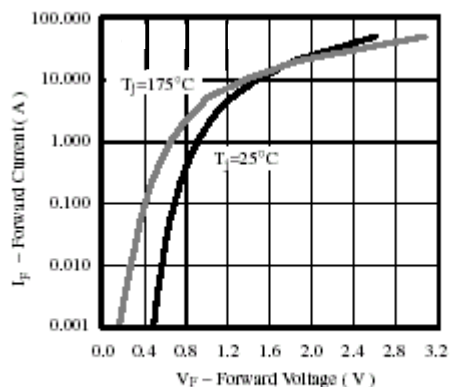
Typical Characteristics


Figure 1. Max. Forward Current vs. Forward Voltage

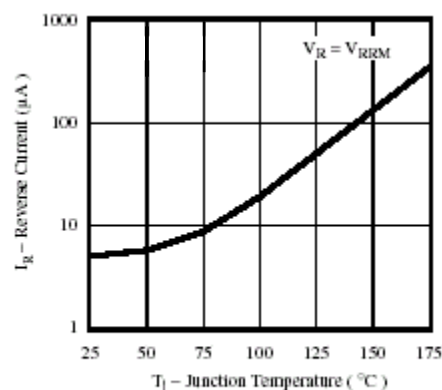


Figure 2. Max. Reverse Current vs. Junction Temperature

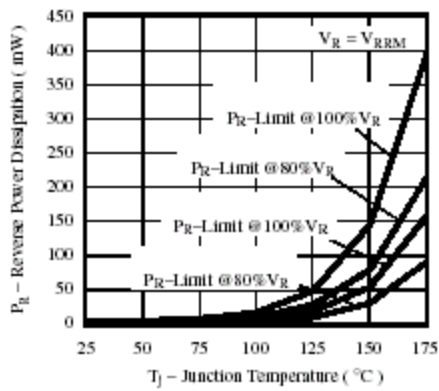
POWER DISCRETES
Typical Characteristics (Cont.)


Figure 3. Max. Reverse Power Dissipation vs. Junction Temperature

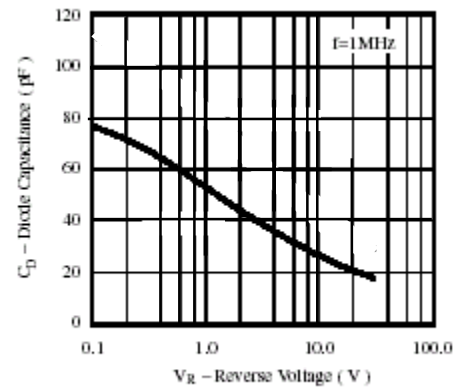


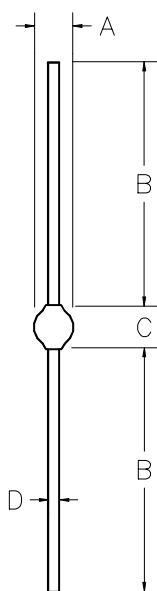
Figure 4. Diode Capacitance vs. Reverse Voltage

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Ordering Information

Part Number	Description
2PFF8 2PFF0	Axial leaded hermetically sealed ⁽¹⁾

Note:

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

Outline Drawing


DIM ^N	Dimensions				Note
	Inches		Millimeters		
	MIN	MAX	MIN	MAX	
A	-	.177	-	4.50	-
B	1.02	-	26	-	-
C	-	.197	-	5.00	-
D	-	.053	-	1.35	-

Weight = 0.035oz