

**POWER DISCRETES**
**Description**

Quick reference data

$$V_R = 200 - 600V$$

$$I_F = 1.25A$$

$$t_{rr} = 30nS$$

$$I_R = 1\mu A$$

**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	PFF2	PFF4	PFF6	Units
Working Reverse Voltage	$V_{RWM}$	200	400	600	V
Repetitive Reverse Voltage	$V_{RRM}$	200	400	600	V
Average Forward Current @ $55^\circ C$ in free air, lead length 0.375"	$I_{F(AV)}$	1.25			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	$T_{STG}$	-65 to +175			$^\circ C$
Operating Temperature Range	$T_{OP}$	-65 to +175			$^\circ C$

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**Electrical Specifications**

	Symbol	PFF2	PFF4	PFF6	Units
Average Forward Current max (pcb mounted, $T_A = 55^\circ\text{C}$ ) for sine wave for square wave	$I_{F(AV)}$ $I_{F(AV)}$		0.7 0.75		A
Average Forward Current max. ( $T_L = 55^\circ\text{C}$ ; $L = 3/8"$ ) for sine wave for square wave	$I_{F(AV)}$ $I_{F(AV)}$		1.15 1.25		A
$I^2t$ for fusing ( $t = 8.3\text{mS}$ ) max.	$I^2t$		2.00		$\text{A}^2\text{S}$
Forward Voltage Drop max. @ $I_F = 1.0\text{A}$ , $T_j = 25^\circ\text{C}$	$V_F$		2.50		V
Reverse Current max. @ $V_{RWM}$ , $T_j = 25^\circ\text{C}$ @ $V_{RWM}$ , $T_j = 100^\circ\text{C}$	$I_R$ $I_R$		1.0 10.0		$\mu\text{A}$
Reverse Recovery Time max. $0.5\text{A } I_F$ to $1.0\text{A } I_{RM}$ recovers to $0.25\text{A } I_{RM(REC)}$	trr		30		nS
Junction Capacitance typ. @ $V_R = 5\text{V}$ , $f = 1\text{MHz}$	$C_j$		30		pF

**Thermal Characteristics**

	Symbol	PFF2, PFF4, PFF6	Units
Thermal Resistance-Junction to Lead Lead length = 0.375" Lead length = 0.0"	$R_{\theta JL}$	47 19	$^\circ\text{C/W}$
Thermal Resistance-Junction to Ambient on 0.06" thick pcb. 1 oz. copper	$R_{\theta JA}$	100	$^\circ\text{C/W}$

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**Maximum Characteristics**

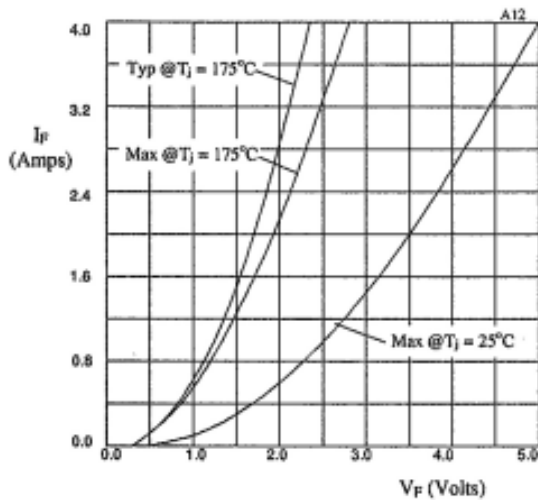


Figure 1. Forward voltage drops as a function of forward current.

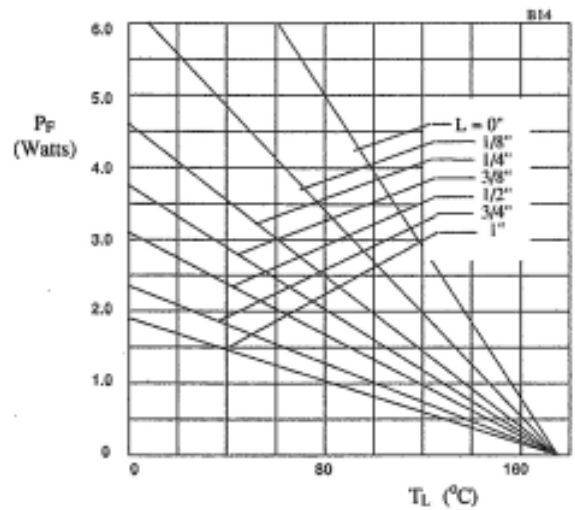


Figure 2. Maximum power versus lead temperature.

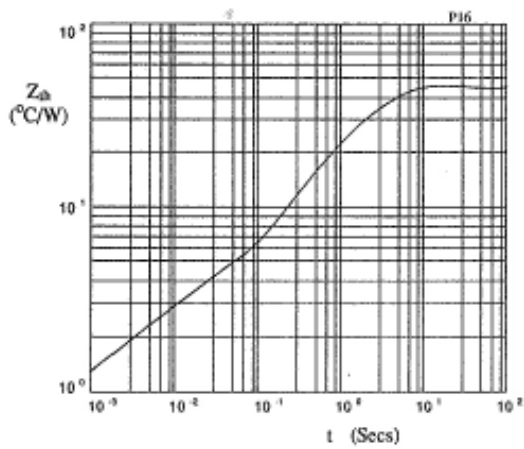


Figure 3. Transient thermal impedance characteristic

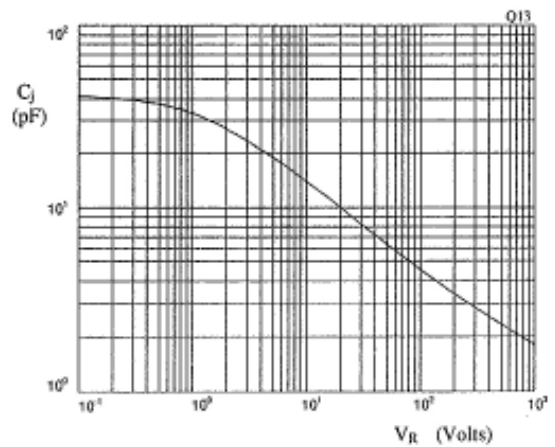


Figure 4. Typical junction capacitance as a function of reverse voltage.

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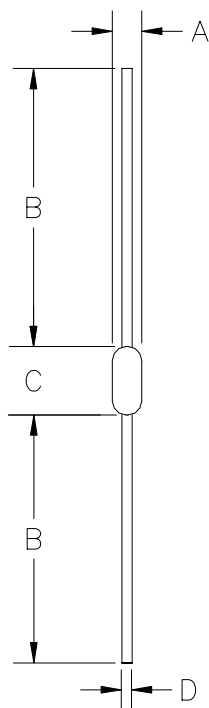
**Ordering Information**

Part Number	Description
PFF2, PFF4, PFF6	Axial leaded hermetically sealed <sup>(1)</sup>

Note:

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

**Outline Drawing**



DIM <sup>N</sup>	Dimensions				Note
	Inches		Millimeters		
	MIN	MAX	MIN	MAX	
A	-	1.50	-	3.81	-
B	1.10	-	28.0	-	-
C	-	.180	-	4.57	-
D	-	.032	-	0.81	-

Weight = 0.013oz

**Contact Information**

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