PFF2, PFF4, PFF6
Axial Leaded Hermetically Sealed Superfast Recovery Rectifier Diode

POWER DISCRETES

Description

Quick reference data

V_R = 200 - 600V
I_F = 1.25A
t_{rr} = 30nS
I_R = 1µA

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°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°C in free air, lead length 0.375"	$I_{F(AV)}$	1.25			A
Repetitive Surge Current @ 55°C in free air, lead length 0.375"	I_{FRM}	4.25			A
Non-Repetitive Surge Current (tp = 8.3mS @ V_R & T_{JMAX})	I_{FSM}	22.0			A
Storage Temperature Range	T_{STG}	-65 to +175			°C
Operating Temperature Range	T_{OP}	-65 to +175			°C

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Electrical Specifications

	Symbol	PFF2	PFF4	PFF6	Units
Average Forward Current max (pcb mounted, T_A = 55°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°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 = 8.3mS) max.	I^2t	2.00			A^2S
Forward Voltage Drop max. @ I_F = 1.0A, T_j = 25°C	V_F	2.50			V
Reverse Current max. @ V_{RWM}, Tj = 25°C @ V_{RWM}, Tj = 100°C	 I_R I_R	 1.0 10.0			µA
Reverse Recovery Time max. 0.5A I_F to 1.0A I_{RM} recovers to 0.25A $I_{RM(REC)}$	trr	30			nS
Junction Capacitance typ. @ V_R = 5V, f = 1MHz	Cj	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	°C/W
Thermal Resistance-Junction to Ambient on 0.06" thick pcb. 1 oz. copper	$R_{\theta JA}$	100	°C/W

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Maximum Characteristics

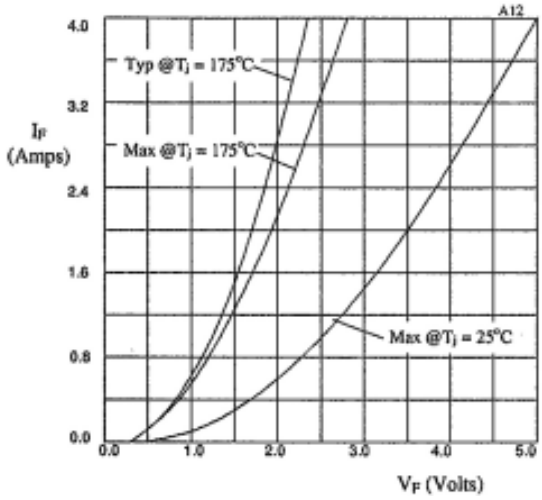


Figure 1. Forward voltage drops as a function of forward current.

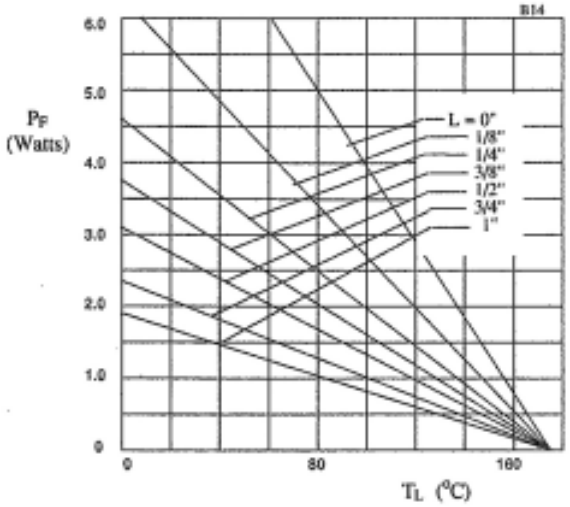


Figure 2. Maximum power versus lead temperature.

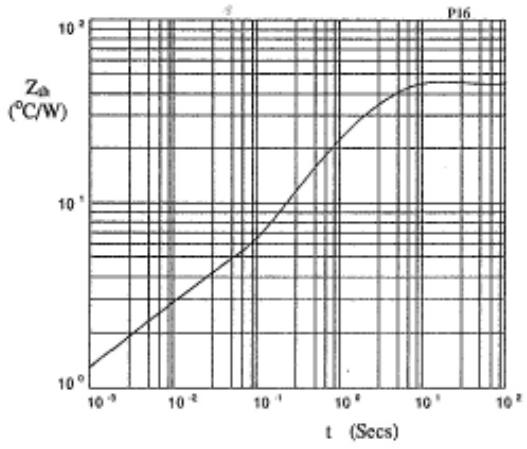


Figure 3. Transient thermal impedance characteristic

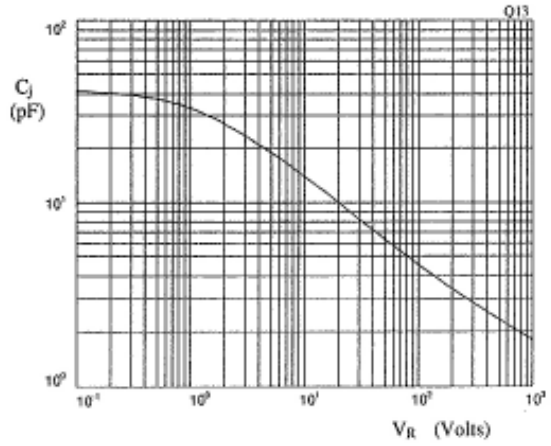


Figure 4. Typical junction capacitance as a function of reverse voltage.

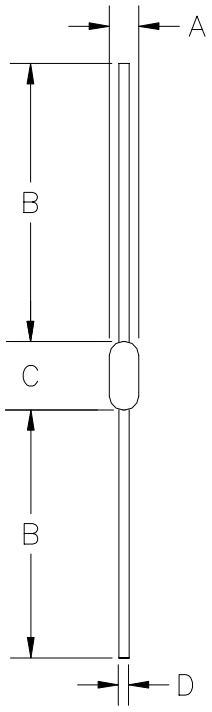
POWER DISCRETES

Ordering Information

Part Number	Description
PFF2, PFF4, PFF6	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	-	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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