

## Excellent Integrated System Limited

Stocking Distributor

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[Semtech](#)  
[PFM50A](#)

For any questions, you can email us directly:  
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



## PFM50A/PFM75A Axial Leaded Hermetically Sealed High Voltage Fast Rectifier Diode

### POWER DISCRETES

#### Description

Quick reference data

$$V_R = 5 - 7.5\text{kV}$$

$$I_F = 92\text{mA}$$

$$t_{rr} = 250\text{nS}$$

$$I_R = 0.5\mu\text{A}$$

#### Features

- ◆ Low reverse recovery time
- ◆ Very low leakage current
- ◆ Glass passivated for hermetic sealing
- ◆ Soft, non-snap off, recovery characteristics
- ◆ Avalanche capability
- ◆ Please contact factory regarding HR screening

### Absolute Maximum Ratings

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

	Symbol	PFM50A	PFM75A	Units
Working Reverse Voltage	$V_{RWM}$	5000	7500	V
Repetitive Reverse Voltage	$V_{RRM}$	5650	8500	V
Surge Reverse Voltage	$V_{RSM}$	5650	8500	V
Average Forward Current @ $55^\circ\text{C}$ , in oil	$I_{F(AV)}$	92		mA
Repetitive Surge Current @ $55^\circ\text{C}$ in oil, lead length 0.375"	$I_{F(AV)}$	1.0		A
Non-Repetitive Surge Current (tp = 8.3mS @ $V_R$ & $T_{JMAX}$ )	$I_{FSM}$	2.0		A
Storage Temperature Range	$T_{STG}$	-65 to +150		$^\circ\text{C}$



## POWER DISCRETES

### Electrical Specifications

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

	Symbol	PFM50A/PFM75A	Units
Average Forward Current max. Unstirred oil @ $55^\circ\text{C}$	$I_{F(AV)}$	92	mA
Forward Voltage Drop max. @ $I_F = 25\text{mA}$ , $T_J = 25^\circ\text{C}$	$V_F$	12.5	V
Reverse Current max. @ $V_{RWM}$ , $T_J = 25^\circ\text{C}$ @ $V_{RWM}$ , $T_J = 100^\circ\text{C}$	$I_R$ $I_R$	0.5 20	$\mu\text{A}$
Reverse Recovery Time max. $50\text{mA } I_F$ , $100\text{mA } I_R$ , $25\text{mA } I_{RM(REC)}$	trr	250	nS
Junction Capacitance typ. @ $V_R = 50\text{V}$ , $f = 1\text{KHz}$	$C_j$	2	pF

### Thermal Characteristics

	Symbol	PFM50A/PFM75A	Units
Thermal Resistance-Junction to Oil Stirred oil Unstirred oil	$R_{\theta JO}$	48 64	$^\circ\text{C/W}$
Thermal Resistance-Junction to Ambient On 0.06" thick pcb. 1oz copper	$R_{\theta JA}$	160	$^\circ\text{C/W}$

**POWER DISCRETES**

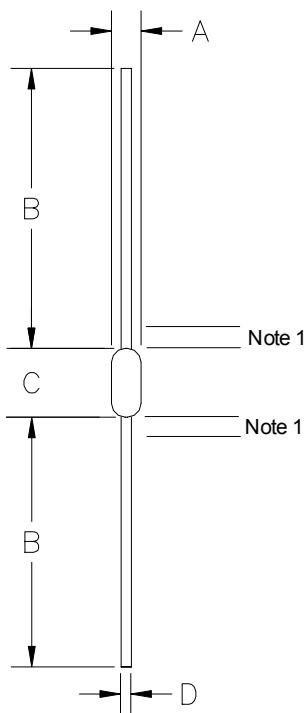
**Ordering Information**

Part Number	Description
PFM50A/PFM75A	Axial leaded hermetically sealed <sup>(1)</sup>

Note:

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

**Outline Drawing**



G82

DIM <sup>N</sup>	Dimensions				Note
	Inches		Millimeters		
	MIN	MAX	MIN	MAX	
A	-	.118	-	3.0	-
B	1.0	-	25.4	-	-
C	-	.374	-	9.5	-
D	-	0.033	-	0.84	-

Note:

1. Lead diameter not controlled in this area.

**Contact Information**

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