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

POWER DISCRETES

Description

Quick reference data

 $V_{R} = 5 - 7.5 kV$ $I_{F} = 92 mA$ $t_{rr} = 250 nS$ $I_{R} = 0.5 \mu A$

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°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°C, in oil | I _{F(AV)} | 92 | | mA |
| Repetitive Surge Current @ 55°C in oil, lead length 0.375" | I _{F(AV)} | 1.0 | | А |
| Non-Repetitive Surge Current (tp = 8.3mS @ $V_R \& T_{JMAX}$) | I _{FSM} | 2.0 | | А |
| Storage Temperature Range | T _{STG} | -65 to +150 | | °C |



one source. one solution.

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Electrical Specifications

Electrical specifications @ $T_A = 25$ °C unless otherwise specified.

| | Symbol | PFM50A/PFM75A | Units |
|---|--------------------|---------------|-------|
| Average Forward Current max. Unstirred oil @ 55°C | I _{F(AV)} | 92 | mA |
| Forward Voltage Drop max. @ I _F = 25mA, Tj = 25°C | V _F | 12.5 | V |
| Reverse Current max. @ V_{RWM} , $Tj = 25^{\circ}C$ @ V_{RWM} , $Tj = 100^{\circ}C$ | I _R | 0.5 20 | μА |
| Reverse Recovery Time max. 50mA $I_{\rm F,}$ 100mA $I_{\rm R,}$ 25mA $I_{\rm RM(REC)}$ | trr | 250 | nS |
| Junction Capacitance typ. @ V _R = 50V, f = 1KHz | Cj | 2 | pF |

Thermal Characteristics

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



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Ordering Information Part Number Description

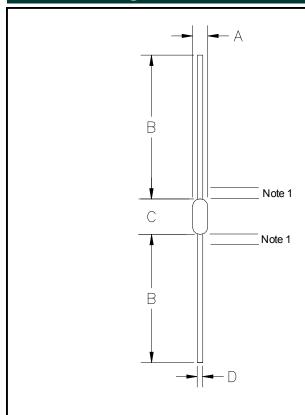
Note:

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

Axial leaded hermetically sealed(1)

Outline Drawing

PFM50A/PFM75A



G82

| Dimensions | | | | | | |
|------------|--------|-------|-------------|------|------|--|
| DIM | Inches | | Millimeters | | Note | |
| | MIN | MAX | MIN | MAX | | |
| Α | - | .118 | - | 3.0 | - | |
| В | 1.0 | - | 25.4 | - | - | |
| С | - | .374 | - | 9.5 | - | |
| D | - | 0.033 | - | 0.84 | - | |

Note:

1. Lead diameter not controlled in this area.