

### POWER DISCRETES

#### Features

- ◆ Very Low Reverse Recovery Time
- ◆ Avalanche Capability
- ◆ Glass Passivated for Hermetic Sealing
- ◆ Low Switching Losses
- ◆ Soft, Non-snap off, Recovery Characteristics
- ◆ These diodes can also be available as screened F and FX level parts

#### Absolute Maximum Rating

Parameter	Symbol	Max	Units
Working reverse voltage	$V_{RWM}$	5000	V
Repetitive reverse voltage	$V_{RRM}$	5000	V
Average forward current (@55°C, lead length 0.375")	$I_{F(AV)}$	0.36	A
Repetitive surge current @25°C	$I_{FRM}$	4	A
Non-repetitive surge current @25°C ( $t_p = 8.3ms$ )	$I_{FSM}$	20	A
Storage temperature range	$t_{STG}$	-65 to +200	°C
Operating temperature range	$T_{OP}$	-65 to +175	°C

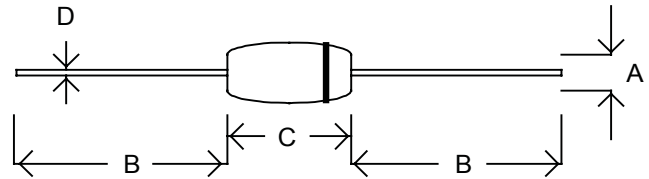
#### Thermal Characteristics

	Symbol	PFF50	Unit
Thermal Impedance	$\theta_{J-L}$	L = 0.000, 3	°C/W
		L = 0.125, 6	°C/W
		L = 0.250, 12	°C/W

#### Electrical Characteristics

Parameter	Condition	Symbol	PFF50	Units
Average forward current	(max at 55°C)	$I_{F(AV)}$	0.36	A
	(max at 100°C)		0.18	
Forward voltage drop	(max @ $I_F = 0.2A$ , $T_J = 25°C$ )	$V_F$	12.5	V
Reverse current	(max at $V_{RWM}$ , $T_J = 25°C$ )	$I_R$	1	µA
	(max at $V_{RWM}$ , $T_J = 100°C$ )		25	
Reverse recovery time	(0.5A $I_F$ to 1.0A $I_{RM}$ . Recover to 0.25A $I_{RM}(REC)$ )	$t_{rr}$	35	ns
Junction capacitance (typ)	50V <sub>DC</sub> @ 1kHz	$C_J$	16	pF

#### Outline Drawing



\*Cathode denoted by a black band

DIM	MM		INCHES	
	Min	Max	Min	Max
A	-	5.5	-	0.215
B	25.4	33.02	1.0	1.3
C	-	8.89	-	0.350
D	0.94	1.1	0.037	0.043

#### Ordering Information

Part Number	Description
PFF50	Axial leaded, hermetically sealed high-voltage superfast rectifier diode <sup>(1)</sup>

Note:

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

**POWER DISCRETES**
**Typical Characteristics**
