

POWER DISCRETES

Description

Quick reference data

$$V_R = 2000V$$

$$I_F = 100mA$$

$$t_{rr} = 200nS$$

$$I_R = 0.25\mu A$$

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	PF20	Units
Working Reverse Voltage	V_{RWM}	2000	V
Repetitive Reverse Voltage	V_{RRM}	2200	V
Average Forward Current @ 55°C in oil	$I_{F(AV)}$	100	mA
Repetitive Surge Current @ 55°C	I_{FRM}	0.5	A
Non-Repetitive Surge Current ($t_p = 8.3mS$ @ V_R & T_{JMAX})	I_{FSM}	1.0	A
Storage Temperature Range	T_{STG}	-65 to +150	°C

POWER DISCRETES
Electrical Specifications

	Symbol	PF20	Units
Average Forward Current max (pcb mounted, $T_A = 55^\circ\text{C}$) for sine wave for square wave, $d = 0.5$	$I_{F(AV)}$ $I_{F(AV)}$	60 65	mA
Average Forward Current max (unstirred oil @ 55°C) for sine wave for square wave	$I_{F(AV)}$ $I_{F(AV)}$	90 100	mA
I^2t for fusing, $t = 8.3\text{mS}$ max	I^2t	0.004	A^2S
Forward Voltage Drop max. @ $I_F = 50\text{mA}$, $T_j = 25^\circ\text{C}$	V_F	6.0	V
Reverse Current max. @ V_{RWM} , $T_j = 25^\circ\text{C}$ @ V_{RWM} , $T_j = 100^\circ\text{C}$	I_R I_R	0.25 10	μA
Reverse Recovery Time max. $50\text{mA } I_F$ to $100\text{mA } I_{RM}$ recovers to $0.25\text{mA } I_{RM(REC)}$	t_{rr}	200	nS
Junction Capacitance typ. @ $V_R = 5\text{V}$, $f = 1\text{MHz}$	C_j	2	pF

Thermal Characteristics

	Symbol	PF20	Units
Thermal Resistance-Junction to Oil Unstirred oil	$R_{\theta JO}$	75	$^\circ\text{C/W}$

POWER DISCRETES
Typical Characteristics

Figure 1.

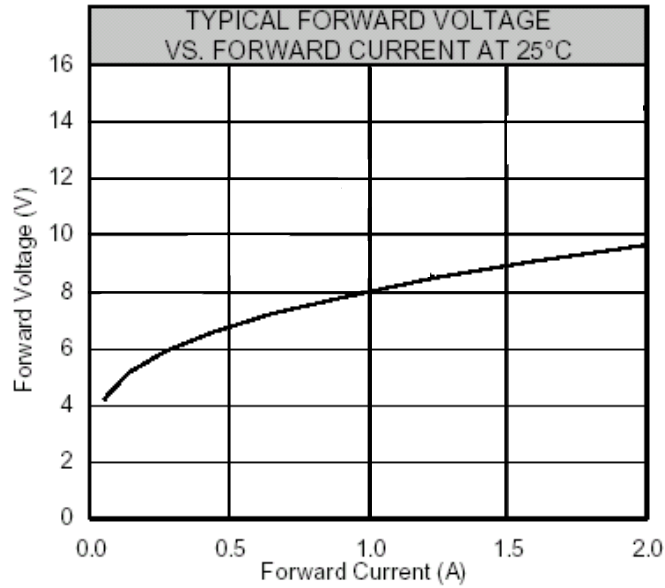


Figure 2.

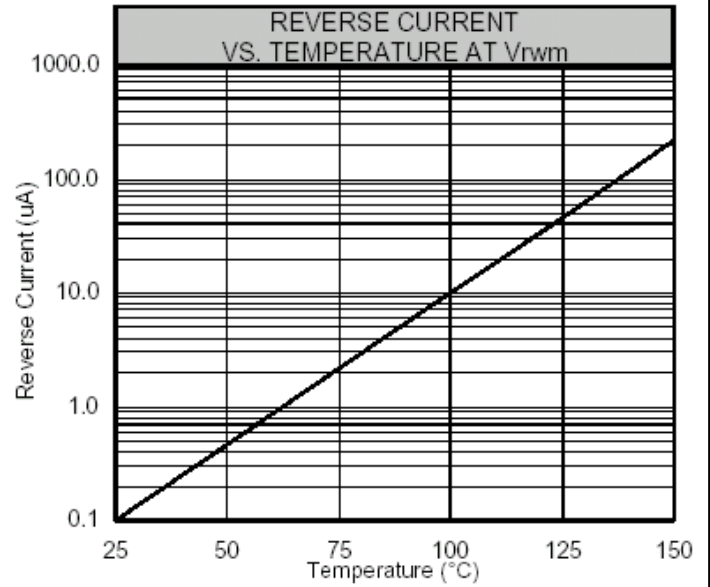
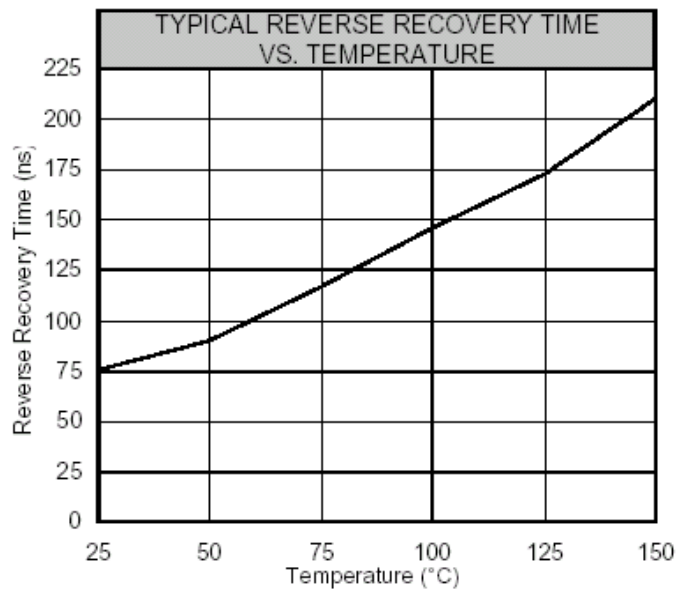


Figure 3.

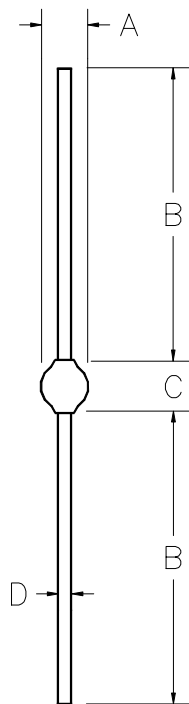


POWER DISCRETES
Ordering Information

Part Number	Description
PF20	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	-	0.13	-	3.3	-
B	1.00	-	25.4	-	-
C	-	0.300	-	7.62	-
D	-	.026	-	.65	-