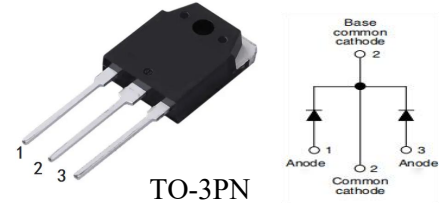


## ULTRAFAST SOFT RECOVERY RECTIFIER DIODE FRD60B30

### •DESCRIPTION:

The FRD60B30 is a ultrafast soft recovery rectifier diode. It has the characteristics of low forward voltage, low leakage current, low power loss, higher reliability systems, RoHS standard.



### •ABSOLUTE MAXIMUM RATINGS Ratings (at 25°C ambient temperature unless otherwise specified.)

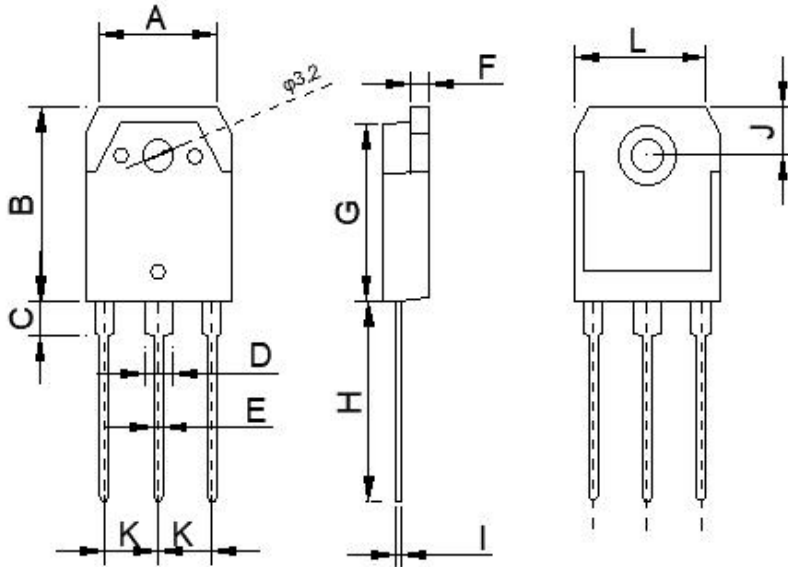
Symbol	Parameter	Value	Unit
$V_R$	Maximum D.C. Reverse Voltage	300	V
$V_{RRM}$	Maximum Peak Repetitive Reverse Voltage		
$V_{RWM}$	Working Peak Reverse Voltage		
$I_{F(AV)}$	Continuous forward current , $T_C=110^\circ C$	60	A
$I_{FSM}$	Single pulse forward current, $T_C=25^\circ C$	600	
$T_J, T_{STG}$	Operating and Storage Temperature Range	-55 to +175	$^\circ C$

### •ELECTRICAL CHARACTERISTICS (at 25°C ambient temperature unless otherwise specified)

Symbol	Parameter	Test Condition	Value			Unit
			MIN	TYPE	MAX	
$V_{BR}$	Reverse breakdown voltage	$I_R=100\mu A$	300			V
$V_F$	Forward voltage	$I_F=30A$		0.97	1.20	
		$I_F=30A, T_j=125^\circ C$		0.87	1.10	
$I_R$	Reverse leakage current	$V_R=300V$			20	$\mu A$
		$T_j=150^\circ C, V_R=300V$			200	
$t_{rr}$	Reverse recovery time	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$			40	ns
		$I_F=1A, V_R=30V, di/dt=200A/\mu s$		25	35	

● PACKAGE MECHANICAL DATA

TO-3PN



Symbol	Millimeter		Inches	
	Min	Max	Min	Max
A	12.4	12.5	0.488	0.492
B	19.9	20.1	0.783	0.791
C	3.3	3.5	0.130	0.138
D	2.9	3.1	0.114	0.122
E	1	1.15	0.039	0.045
F	1.95	2.05	0.077	0.081
G	18.35	18.45	0.722	0.726
H	19.8	20	0.780	0.787
I	0.62	0.65	0.024	0.026
J	4.95	5.05	0.195	0.199
K	5.4	5.5	0.213	0.217
L	15.4	15.5	0.606	0.610

● ELECTRICAL CHARACTERISTICS (CURVES)

Figure 1 Typical Forward Voltage Drop

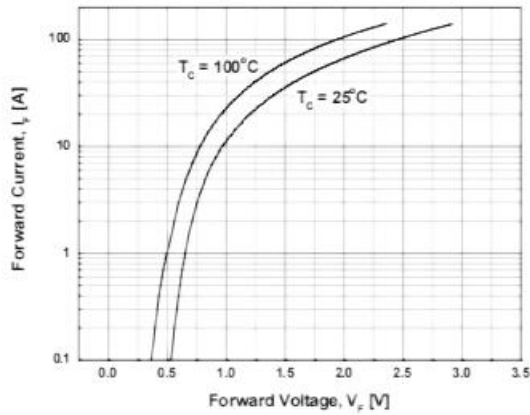


Figure 2 Typical Reverse Current

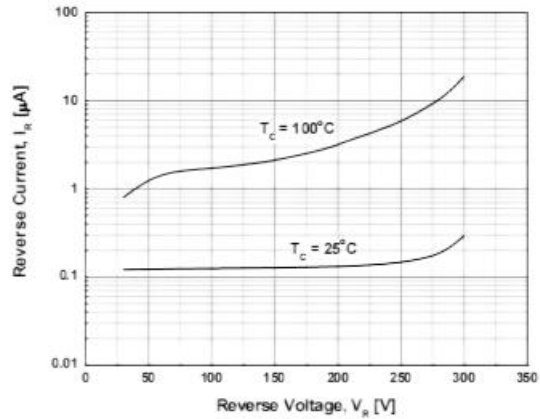


Figure 3 Typical Junction Capacitance

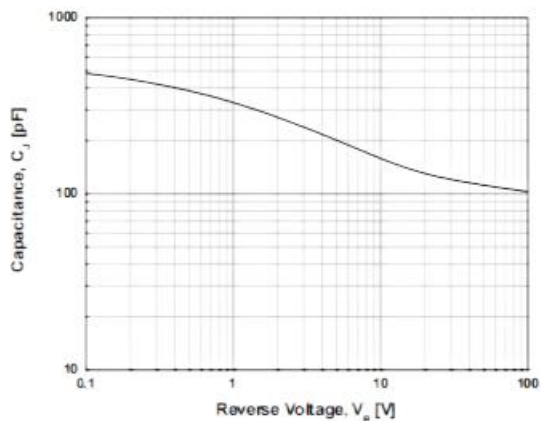


Figure 4 Typical Reverse Recovery Time

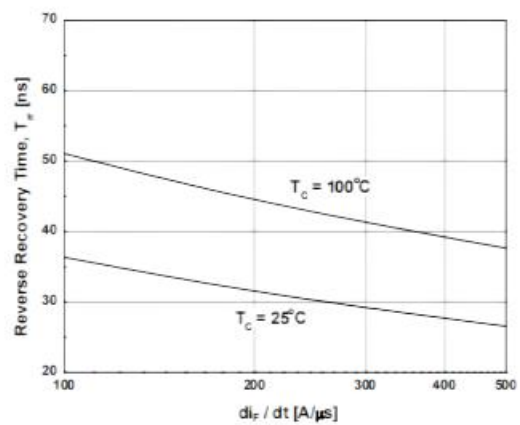


Figure 5 Typical Reverse Recovery Current

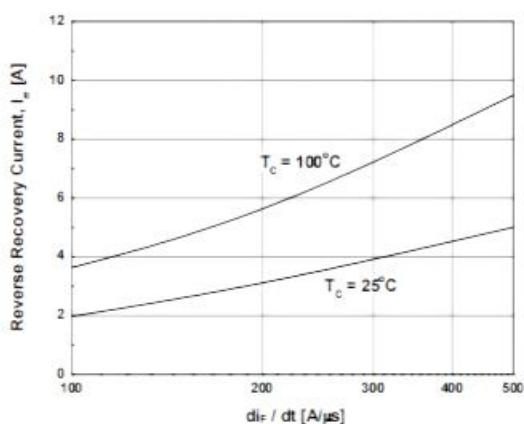


Figure 6 Forward Current Deration Curve

