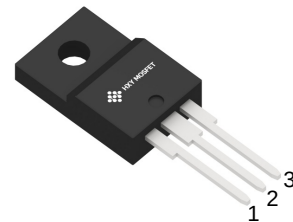




Features

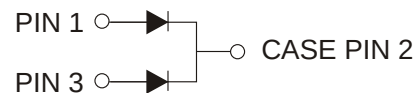
- Ultrafast 35ns Recovery Times
- High Voltage Capability to 400V
- Low Reverse Leakage Current



TO-220F

Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	400	V
V_{RWM}	Working peak reverse voltage	400	V
V_R	DC blocking voltage	400	V
$V_{R(RMS)}$	RMS reverse voltage	280	V
I_O	Average rectified output current@ Per leg	5	A
	Average rectified output current@ Total device	10	A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	70	A
P_D	Power dissipation	2	W
$R_{\theta JA}$	Thermal resistance from junction to ambient	62.5	°C/W
T_j	Operating Junction Temperature Range	-55 ~ +150	°C
T_{stg}	Storage Temperature Range	-55 ~ +150	°C



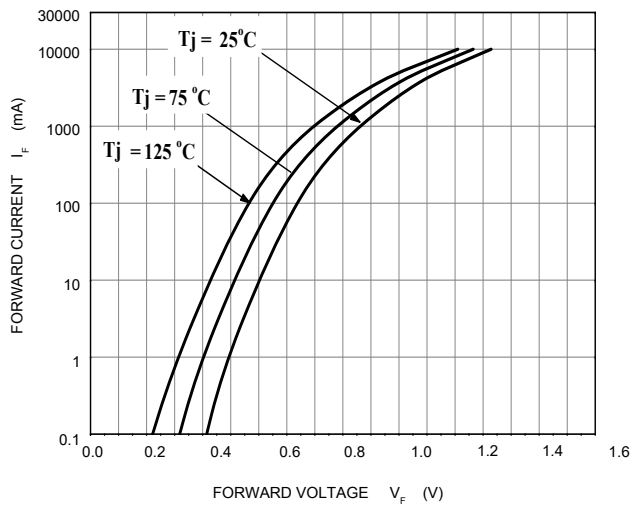
Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu A$	400			V
Reverse current	I_R	$V_R=400V$	$T_j=25^\circ C$	0.2	1	μA
			$T_j=125^\circ C$	1.0		μA
Forward voltage	V_F	$I_F=5.0A$	$T_j=25^\circ C$	1.25	1.4	V
			$T_j=125^\circ C$	1.10		V
Typical total capacitance	C_{tot}	$V_R=4.0V, f=1MHz$		16		pF
Reverse recovery time	t_{rr}	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$			35	ns

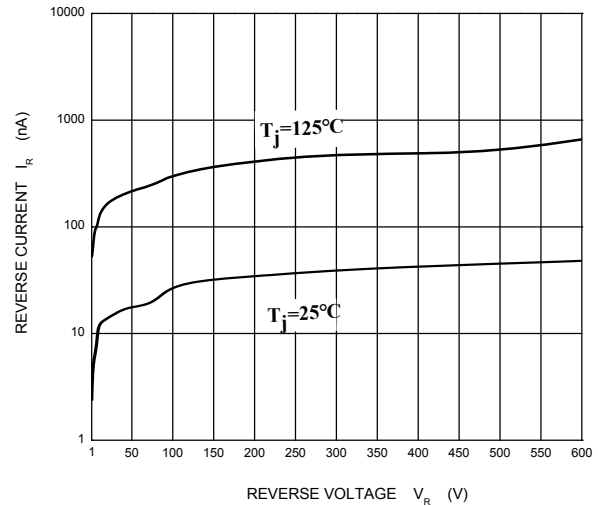


Typical Characteristics

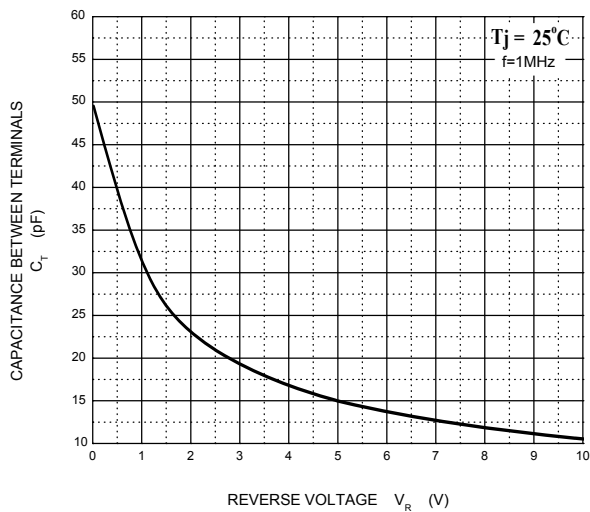
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

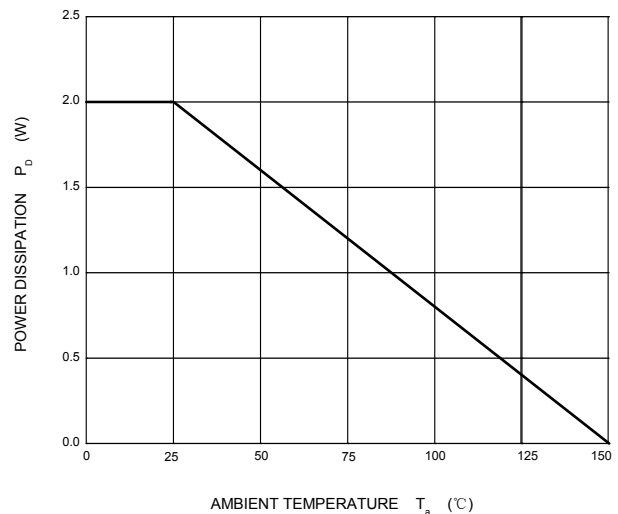
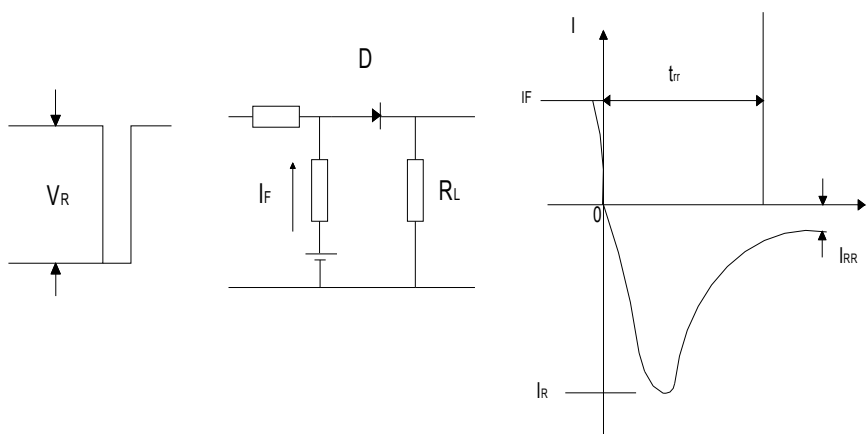
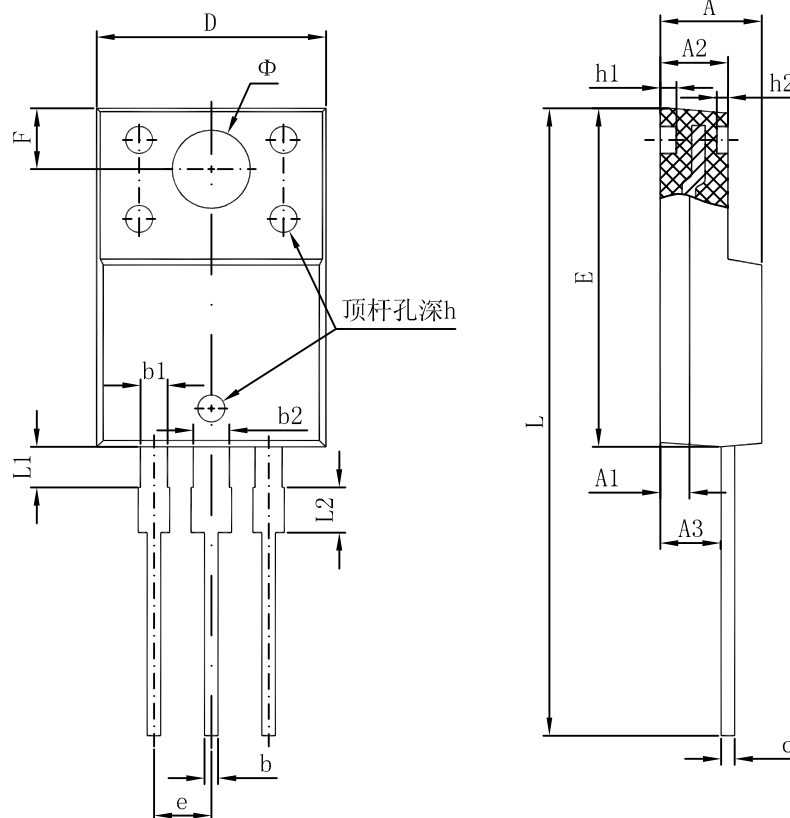


Diagram of circuit and Testing wave form of reverse recovery time





Package Information
TO-220F



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.300	4.700	0.169	0.185
A1	1.300 REF.		0.051 REF.	
A2	2.800	3.200	0.110	0.126
A3	2.500	2.900	0.098	0.114
b	0.500	0.750	0.020	0.030
b1	1.100	1.350	0.043	0.053
b2	1.500	1.750	0.059	0.069
c	0.500	0.750	0.020	0.030
D	9.960	10.360	0.392	0.408
E	14.800	15.200	0.583	0.598
e	2.540 TYP.		0.100 TYP.	
F	2.700 REF.		0.106 REF.	
Φ	3.500 REF.		0.138 REF.	
h	0.000	0.300	0.000	0.012
h1	0.800 REF.		0.031 REF.	
h2	0.500 REF.		0.020 REF.	
L	28.000	28.400	1.102	1.118
L1	1.700	1.900	0.067	0.075
L2	1.900	2.100	0.075	0.083



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