



## Features

Low power loss, high efficiency.

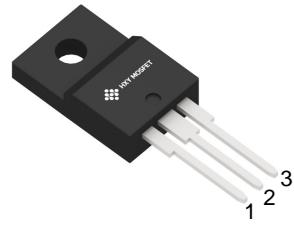
High surge capacity

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

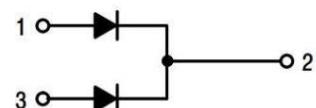
Metal silicon junction, majority carrier conduction.

High current Capability, low forward voltage drop.

Guard ring for over voltage protection.



**TO-220F  
(ITO-220AB-3)  
PIN CONNECTIONS**



## Absolute Maximum Ratings (T<sub>c</sub>=25°C)

Parameter	Symbol	Limit	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	45	V
Maximum RMS Voltage	V <sub>RMS</sub>	31.5	V
Maximum DC Blocking Voltage	V <sub>R(DC)</sub>	45	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	20	A
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	175	A
Maximum Forward Voltage at 10A per leg	V <sub>F</sub>	0.65	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.1	mA
T <sub>j</sub> =25°C		20	mA
T <sub>j</sub> =125°C			
Maximum Operating Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55~+ 150	°C
Typical Thermal Resistance	R <sub>θJC</sub>	1.4	°C/W



## Typical Characteristics

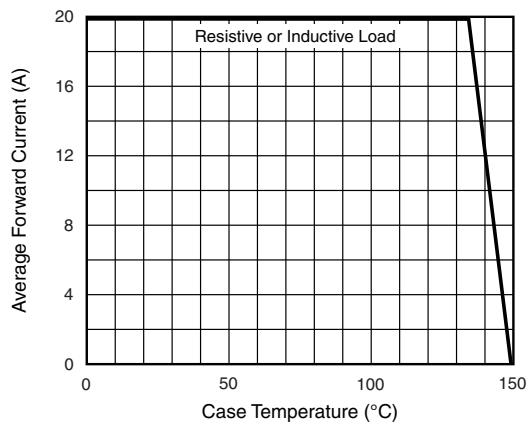


Fig. 1 - Forward Derating Curve (Total)

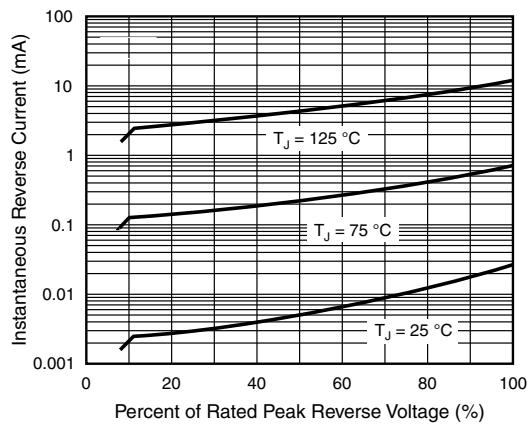


Fig. 4 - Typical Reverse Characteristics Per Diode

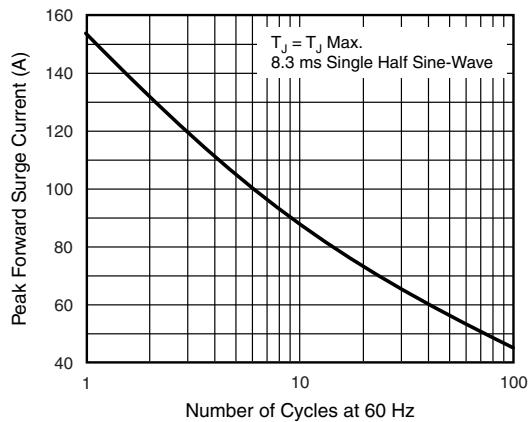


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

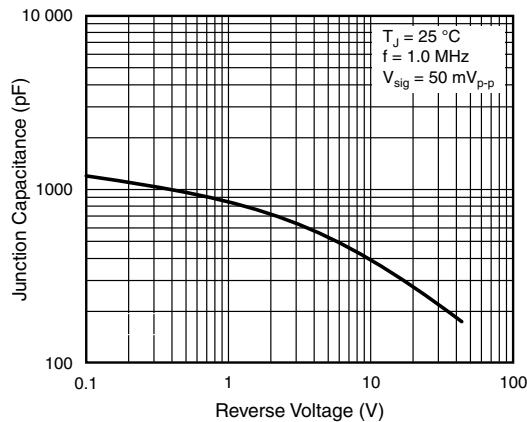


Fig. 5 - Typical Junction Capacitance Per Diode

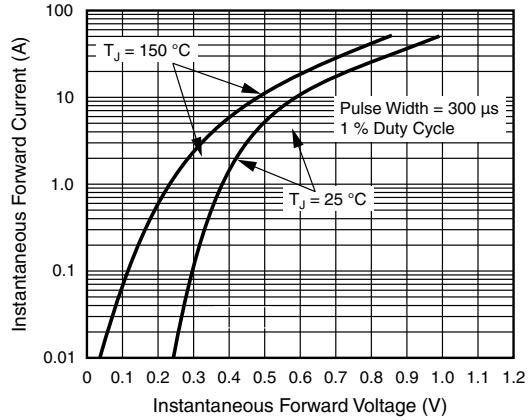


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

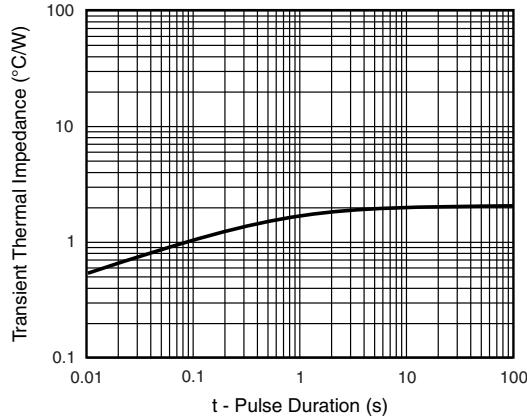
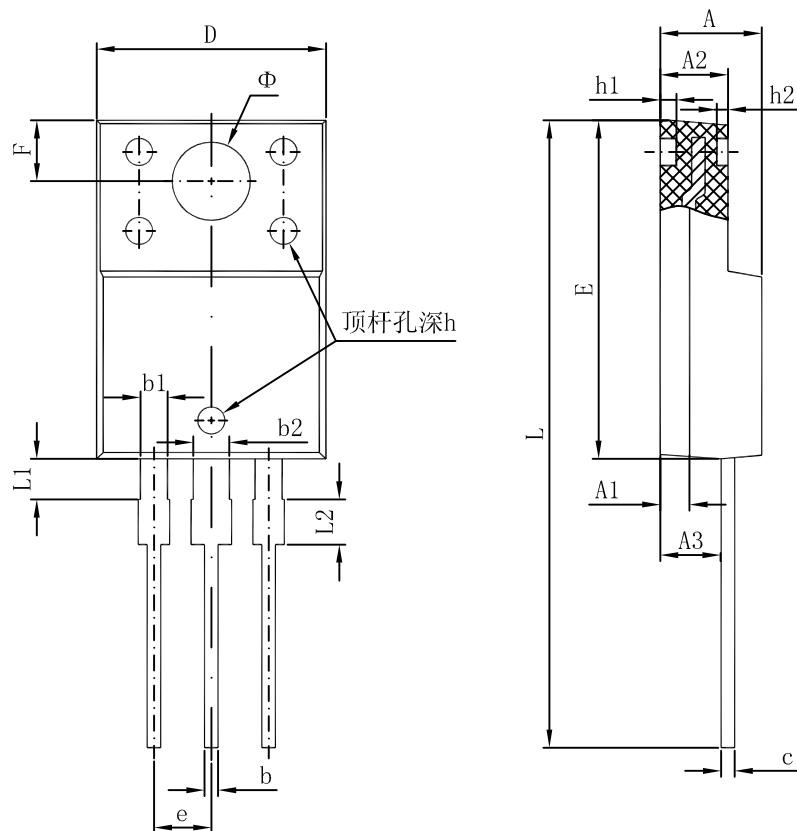


Fig. 6 - Typical Transient Thermal Impedance Per Diode



### TO-220F(ITO-220AB-3) Package Information



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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