

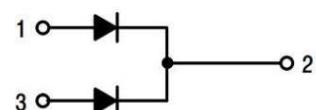


Features

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
PIN CONNECTIONS**



Absolute Maximum Ratings ($T_c=25^\circ\text{C}$)

Parameter	Symbol	Limit	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	$V_{R(DC)}$	100	V
Maximum Average Forward Current	$I_{F(AV)}$	20	A
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	175	A
Maximum Forward Voltage at 10 Aper leg	V_F	0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.1	mA
		20	mA
Maximum Operating Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65~+175	$^\circ\text{C}$
Typical Thermal Resistance	$R_{\theta JC}$	1.4	$^\circ\text{C}/\text{W}$



Typical Characteristics

FIG.1- FORWARD CURRENT DERATING CURVE

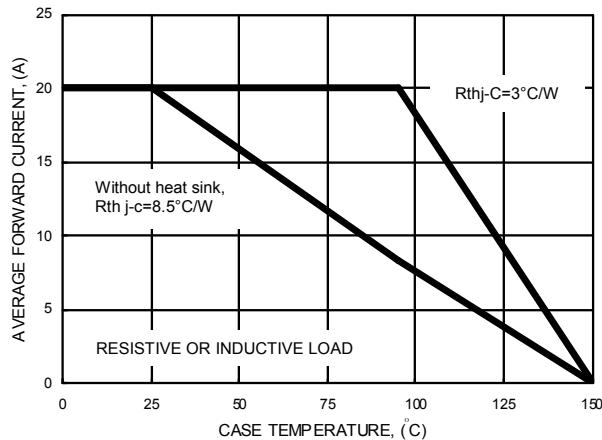


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

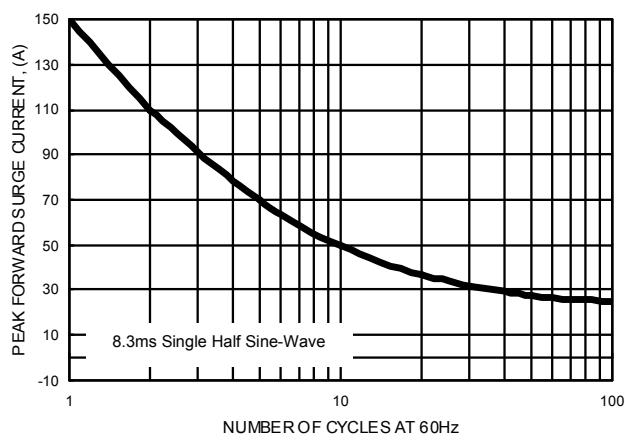


FIG.3- TYPICAL REVERSE CHARACTERISTICS

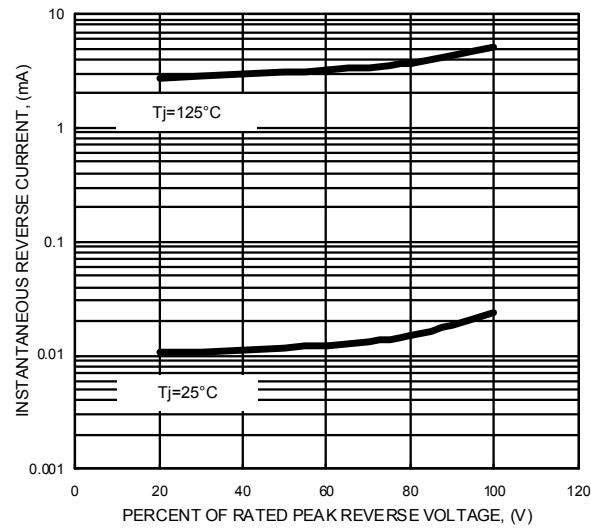


FIG.4- TYPICAL FORWARD CHARACTERISTICS

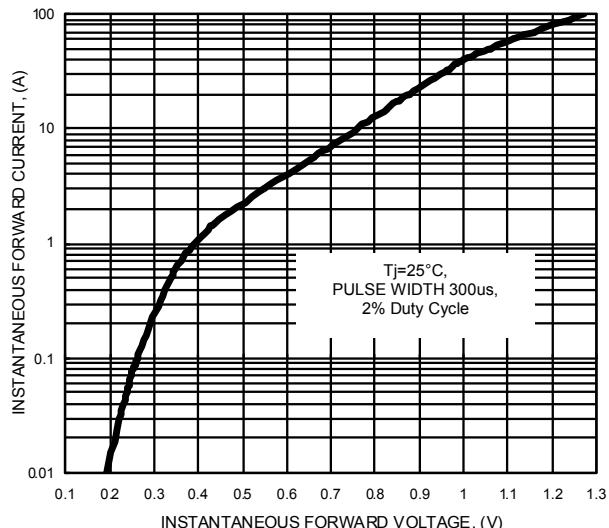


FIG.5- TYPICAL JUNCTION CAPACITANCE

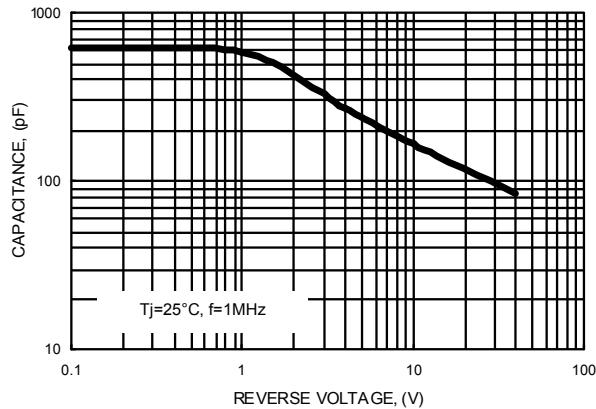
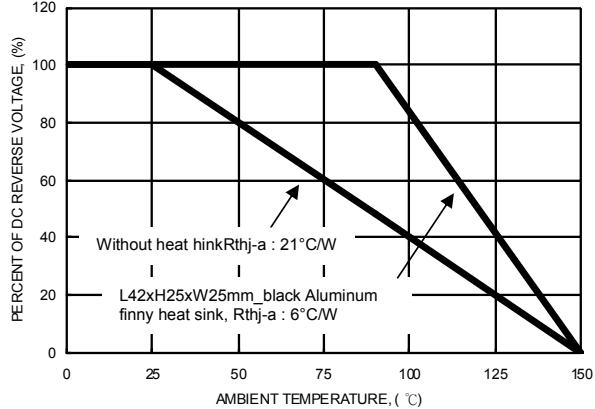
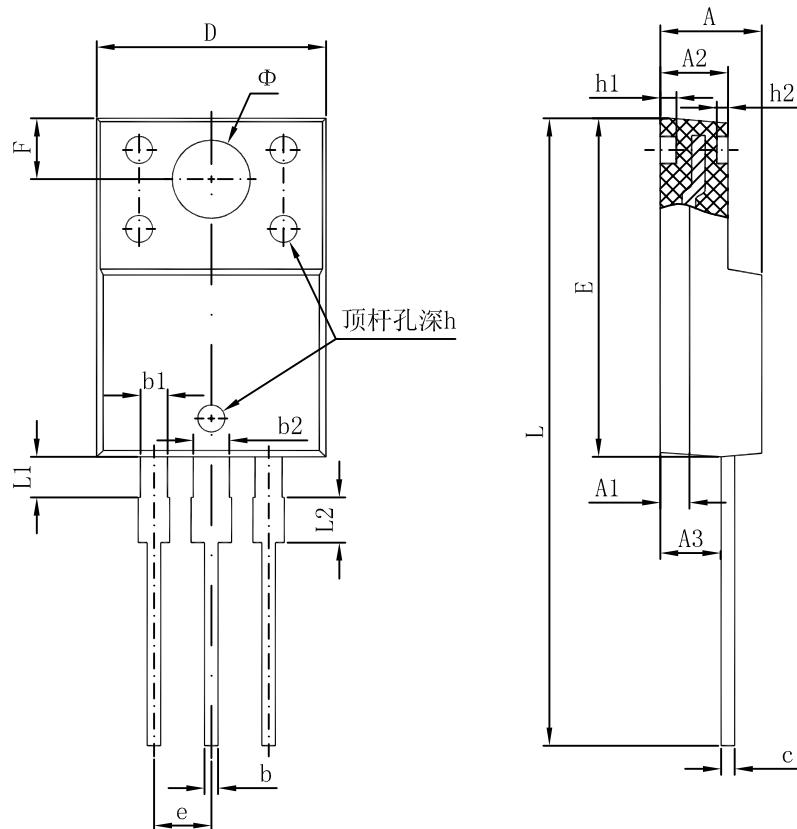


FIG.6- DC REVERSE VOLTAGE DERATING CURVE





TO-220F 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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