MBRF2090CT-M3/4W
Schottky Rectifier Diodes

Features

Low power loss,high efficiency.

High surge capacity

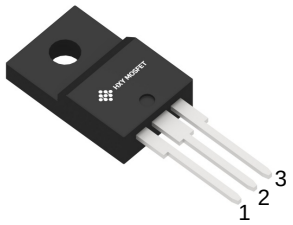
For use in low voltage,high frequency inverters,

free wheeling,and polarity protection applications.

Metal silicon junction,majority carrier conduction.

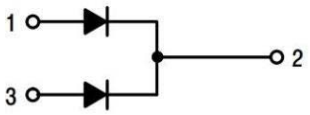
High current Capability,low forward voltage drop.

Guard ring for over voltage protection.



TO-220F

PIN CONNECTIONS



Absolute Maximum Ratings (T_C=25°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	Tj=25°C	I_R	0.1	mA
	Tj=125°C		20	mA
Maximum Operating Junction Temperature		T_j	175	°C
Storage Temperature		T_{stg}	-65~+175	°C
Typical Thermal Resistance		$R_{\theta JC}$	1.4	°C/W

Typical Characteristics

FIG.1- FORWARD CURRENT DERATING CURVE

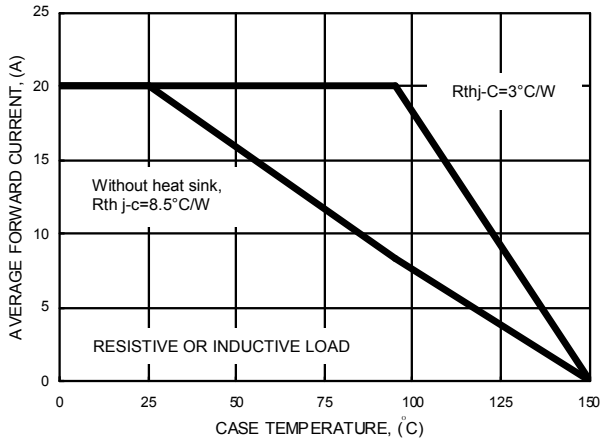


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

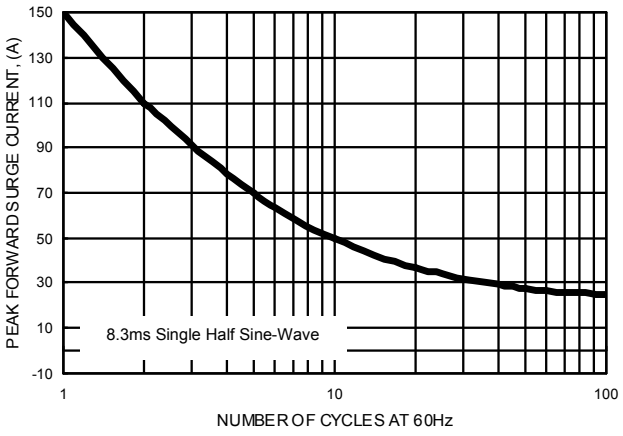


FIG.3- TYPICAL REVERSE CHARACTERISTICS

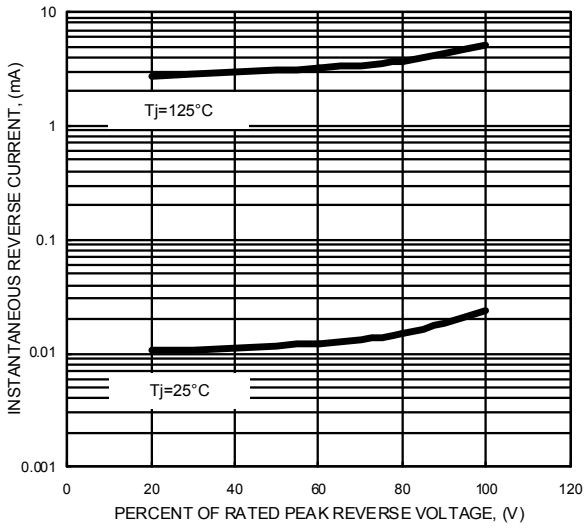


FIG.4- TYPICAL FORWARD CHARACTERISTICS

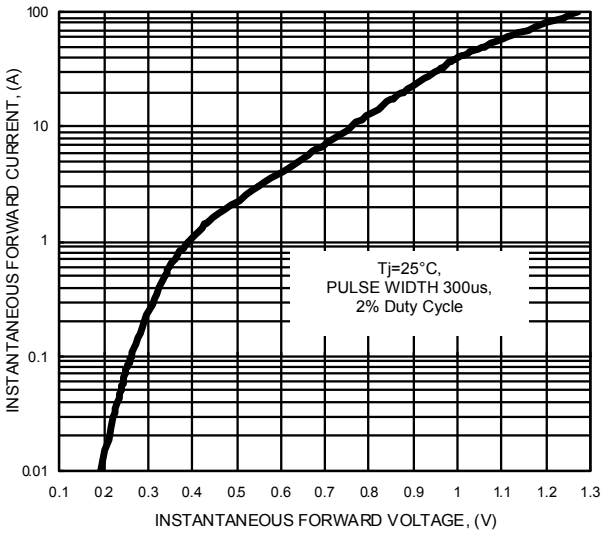


FIG.5- TYPICAL JUNCTION CAPACITANCE

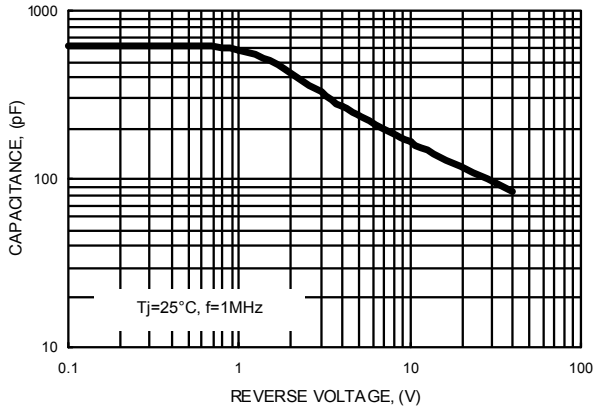
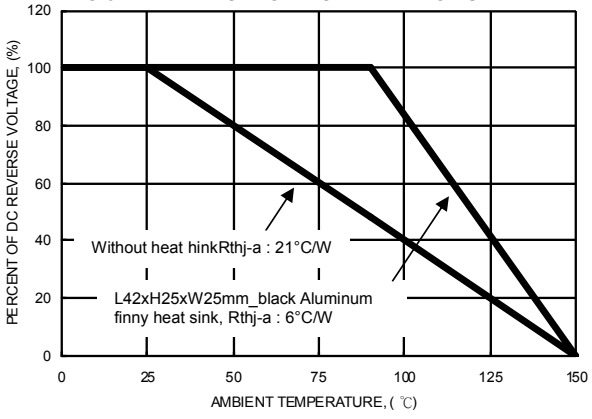
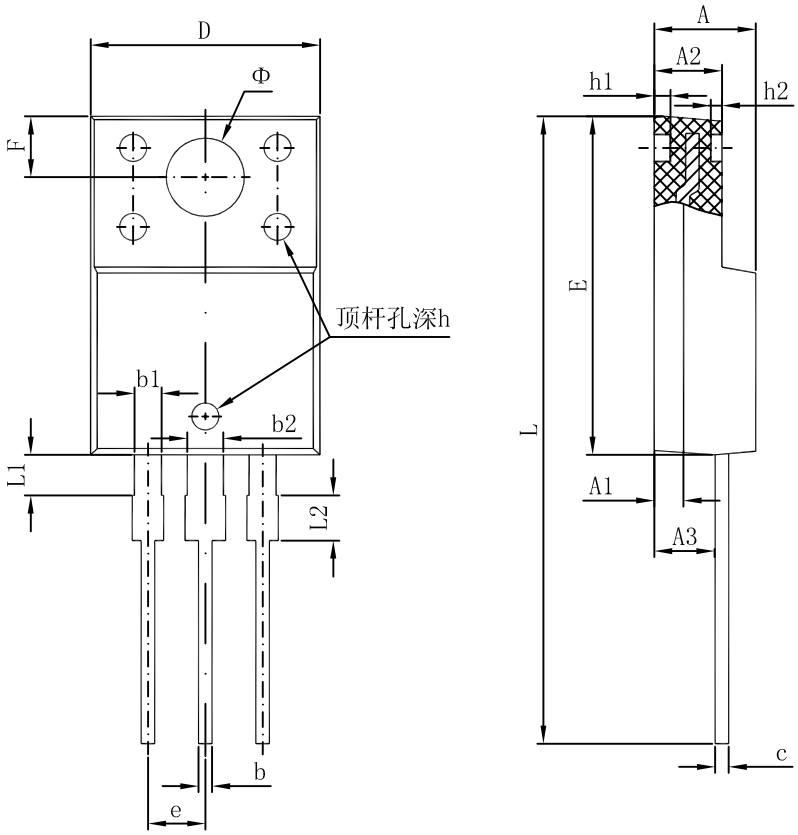


FIG.6- DC REVERSE VOLTAGE DERATING CURVE



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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