Features

Low power loss,high efficiency.

High surge capacity

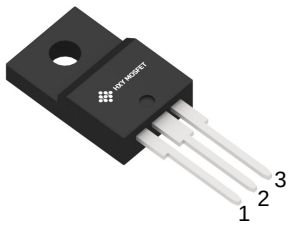
For use in low voltage,high frequency inverters,

free wheeling,and polarity protection applications.

Metal silicon junction,majority carrier conduction.

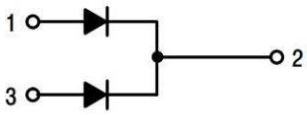
High current Capability,low forward voltage drop.

Guard ring for over voltage protection.



TO-220F

PIN CONNECTIONS



Absolute Maximum Ratings (T_C=25℃)

Parameter		Symbol	HMBRF 1040 CT	HMBRF 1045 CT	HMBRF 1050 CT	HMBRF 1060 CT	HMBRF 1080 CT	HMBRF 1090 CT	HMBRF 10100 CT	HMBRF 10150 CT	HMBRF 10200 CT	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage		V_{RMS}	28	31.5	35	42	56	63	70	105	140	
Maximum DC Blocking Voltage		$V_{R(DC)}$	40	45	50	60	80	90	100	150	200	
Maximum Average Forward Current		$I_{F(AV)}$	10									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	150									
Maximum Forward Voltage at 5A per leg		V_F	0.65		0.72		0.85			0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	Tj=25℃	I_R	0.1									mA
	Tj=125℃		20									
Maximum Operating Junction Temperature		T_j	150				175					℃
Storage Temperature		T_{stg}	-55~+150				-65~+175					
Typical Thermal Resistance		$R_{\theta JC}$	1.4									℃/W

Typical Characteristics

FIG. 1- FORWARD CURRENT DERATING CURVE

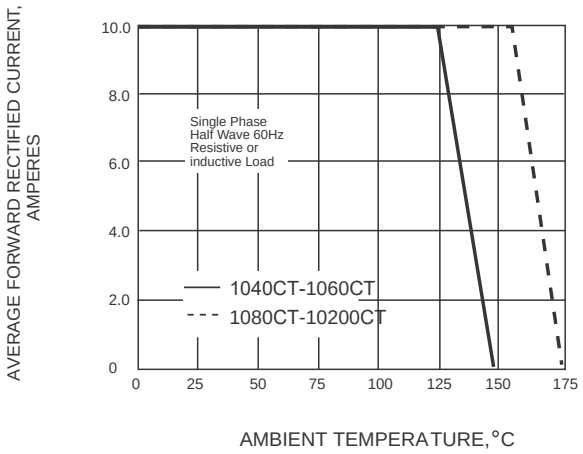


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

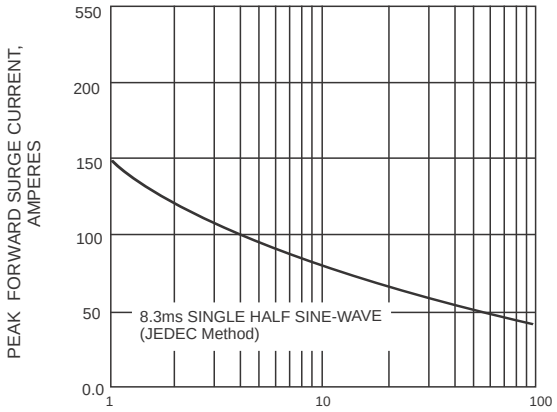


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

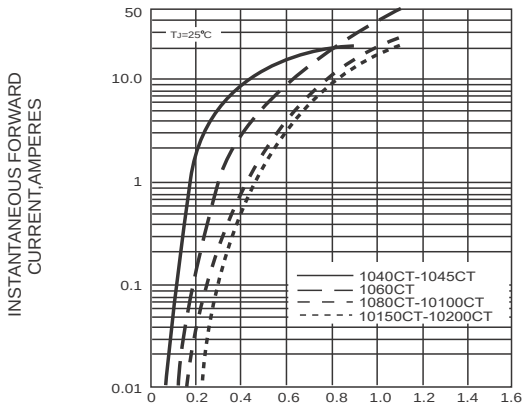
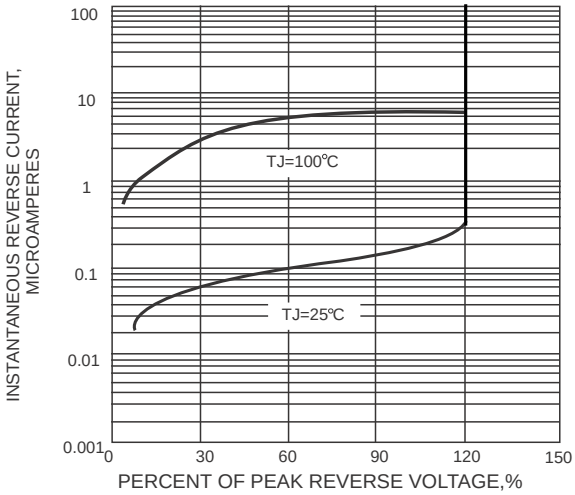
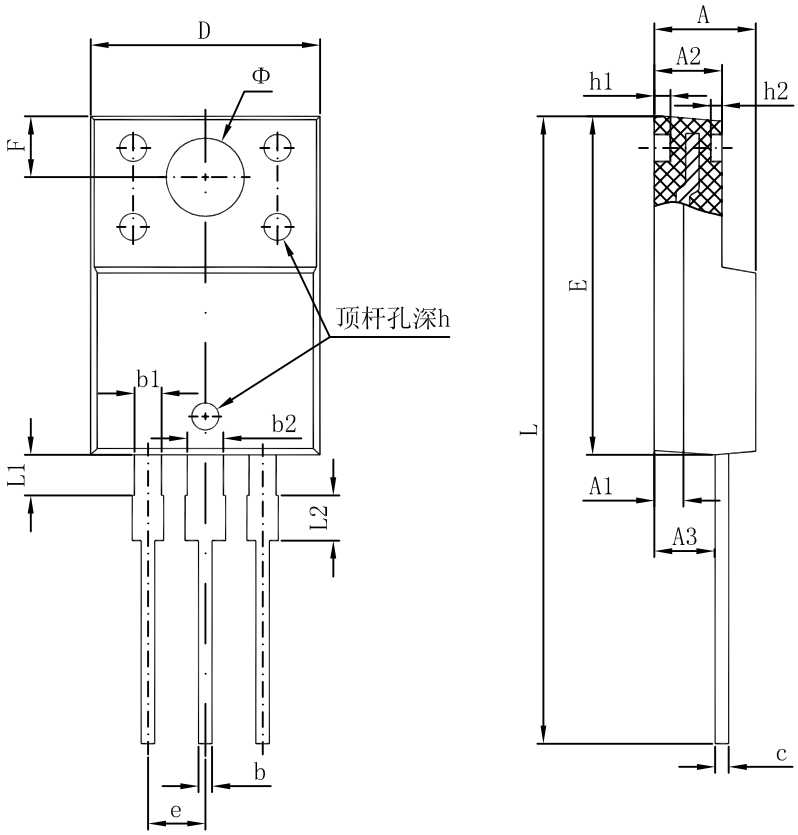


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



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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