Hottech Semiconductor

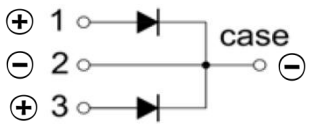
MBR1060FCT

SCHOTTKY BARRIER DIODE

FEATURES

- Low power loss, high efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- Guard Ring for over voltage protection
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications

TO-220F



MECHANICAL DATA

- Case: TO-220F
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 2.00 grams (approximate)

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	60	V
DC Reverse Voltage	V_R	60	V
RMS Reverse Voltage	V_{RMS}	42	V
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I_{FSM}	120	A
Mean rectifying current	I_F	10	A
Power dissipation	P_D	2	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	50	°C/W
Junction Temperature	T_J	125	°C
Storage Temperature	T_{STG}	-55 ~+150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min	Max	Unit	Conditions
Forward voltage	V_F		0.80	V	I_F=5A
			0.95	V	I_F=10A(Pulse Test)
Reverse current	I_R		0.10	mA	V_R=60V
Reverse voltage	V_R	60		V	I_R=0.1mA
Junction capacitance	C_J		150	pF	V_R=4V,f=1MH

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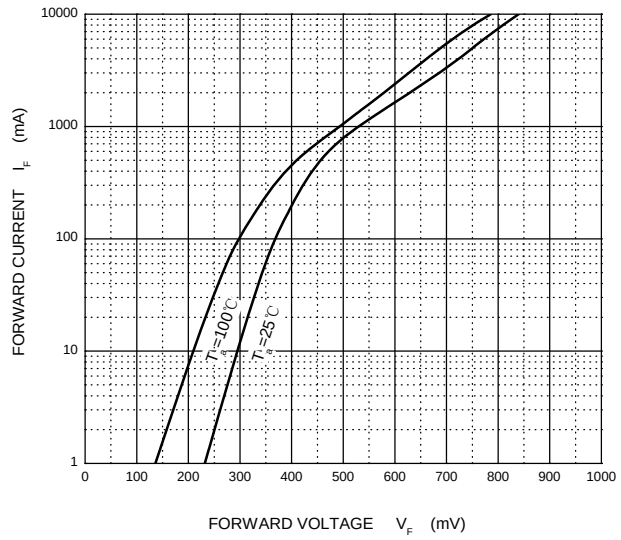
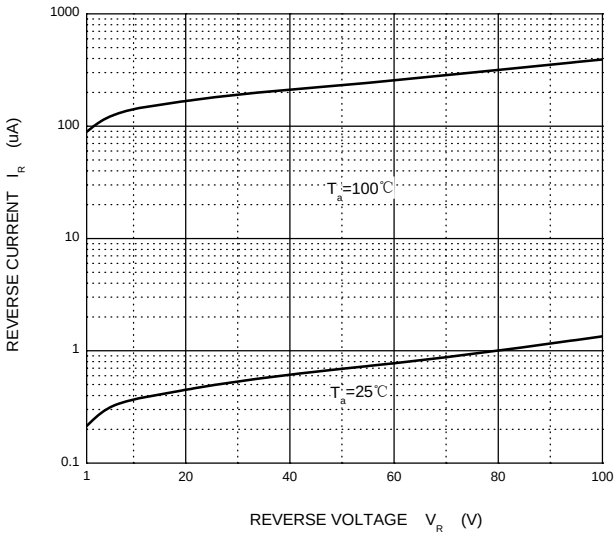
Typical Characteristics

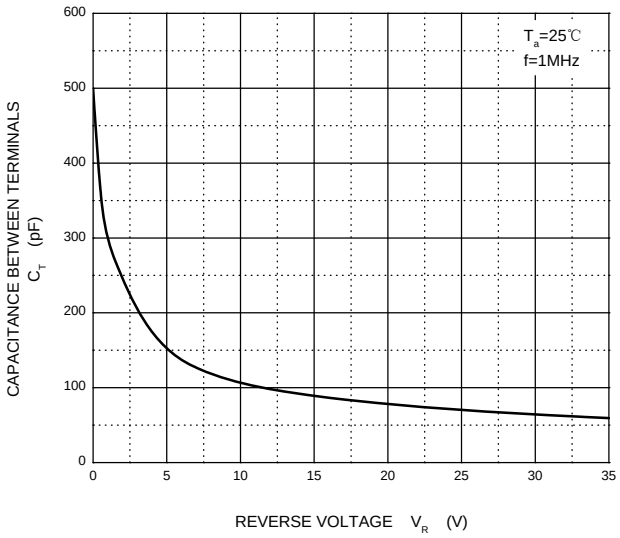
Forward Characteristics



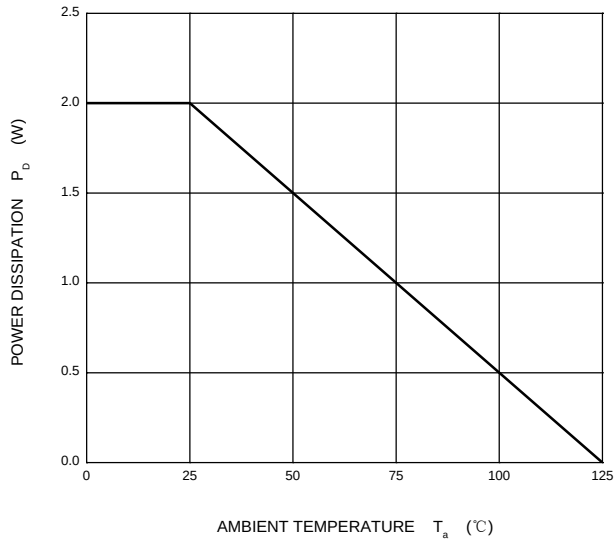
Reverse Characteristics



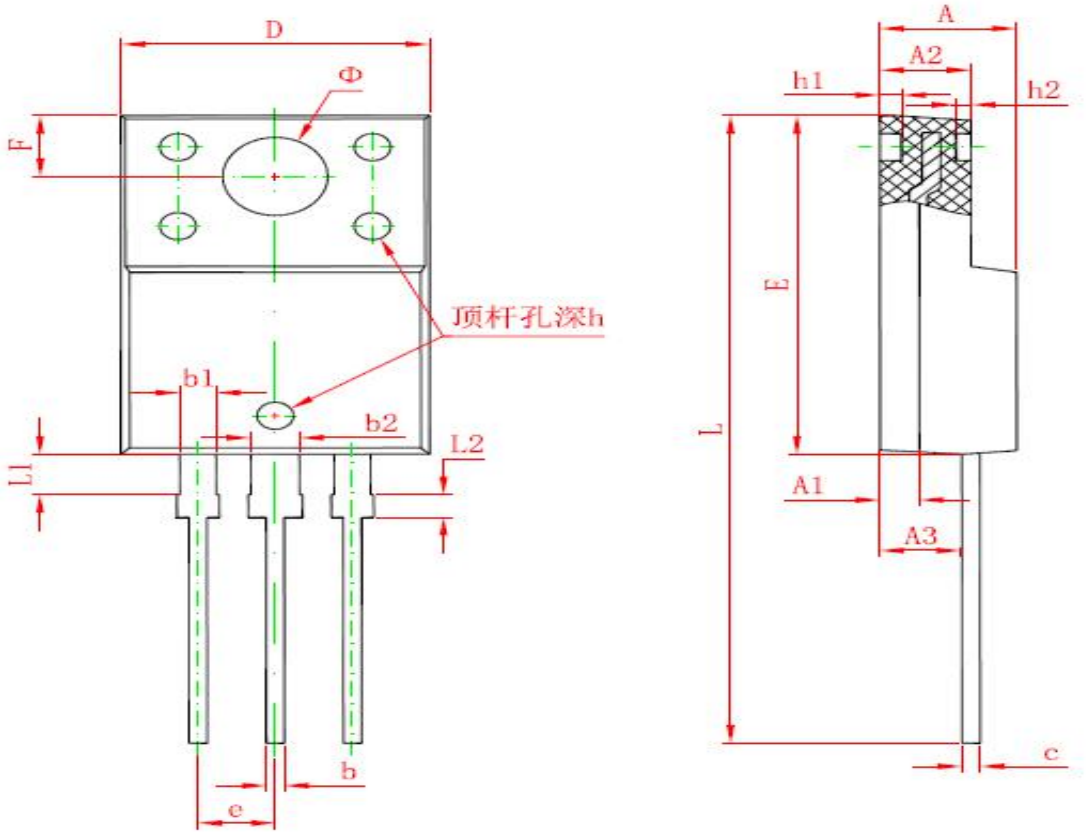
Capacitance Characteristics



Power Derating Curve



TO-220F Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.300	4.700	0.169	0.185
A1	1.300REF		0.051REF	
A2	2.800	3.200	0.110	0.126
A3	2.500	2.900	0.098	0.114
b	0.500	0.750	0.012	0.021
b1	1.100	1.350	0.020	0.030
b2	1.500	1.750	0.043	0.053
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	2.540TYP		0.100TYP	
F	2.700REF		0.106REF	
Ø	3.500REF		0.138REF	
h	0.000	0.300	0.000	0.012
h1	0.800REF		0.031REF	
h2	0.500REF		0.020REF	
L	28.000	28.400	1.102	1.118
L1	1.700	1.900	0.067	0.075
L2	0.900	1.100	0.035	0.043