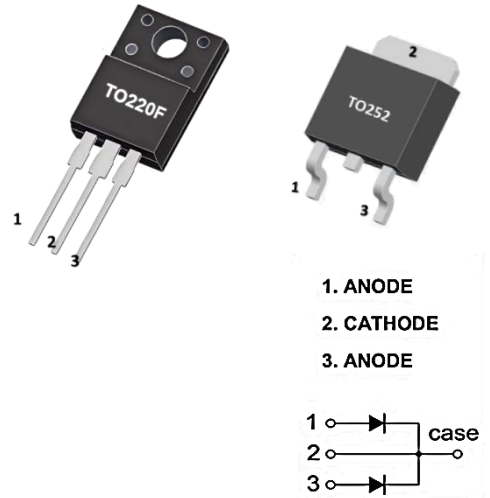


MBR(D/F)1045CT

SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

The MBR(D/F)1045CT is a Schottky Barrier Rectifier with high efficiency, low power dissipation and high current capacity. It can be applied in high frequency, low voltage inverters, polarity protection and free wheeling applications.



FEATURE

- * High surge capability
- * High efficiency, low power dissipation, high current capability, low forward voltage drop
- * Guardring for overvoltage protection

MARKING (The image is for reference only. Please take the actual product as the standard)



MBR(D/F)1045CT=Device Code

XXXX(X)=Date Code

Solid Dot=Green molding compound

ABSOLUTE MAXIMUM RATINGS (TA=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	VRM	45	V
Working Peak Reverse Voltage	VRWM	45	V
Peak Repetitive Reverse Voltage	VRRM	45	V
RMS Reverse Voltage	VR(RMS)	31.5	V
Average Rectified Output Current (TC=105°C)	Per Leg	5	A
	Total	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	IFSM	100*2	A
Operating Junction Temperature	TJ	+150	°C
Storage Temperature	TSTG	-55 ~ +150	°C

Note: 1. Single phase, half wave, 60Hz, resistive or inductive load. For capacitance load, derate current by 20%.

2. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

3. Thermal resistance junction to case mounted on heatsink.

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SCHOTTKY BARRIER RECTIFIER

THERMAL DATA

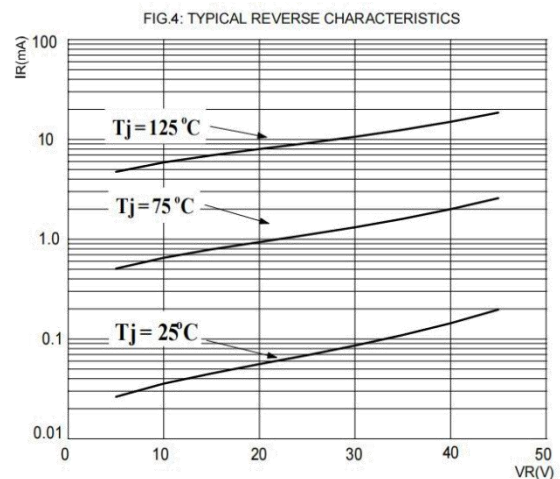
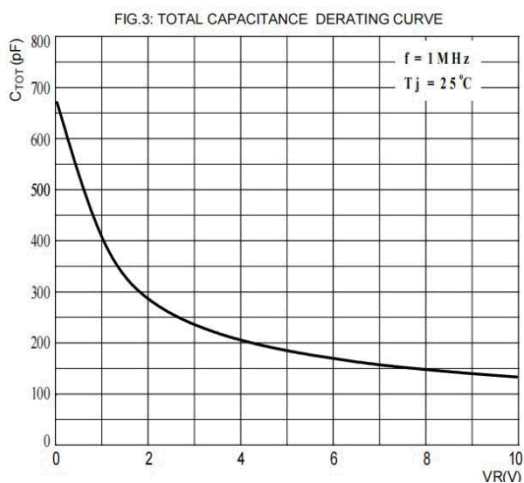
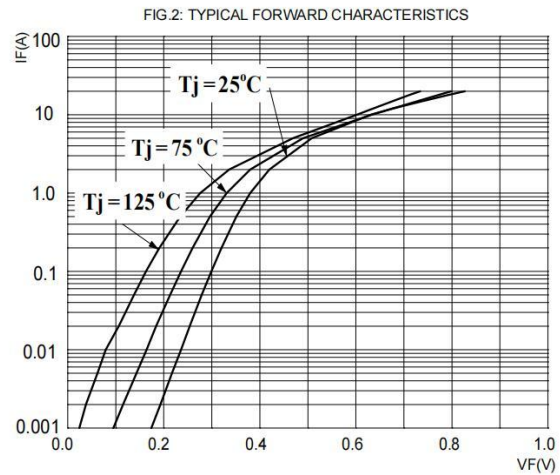
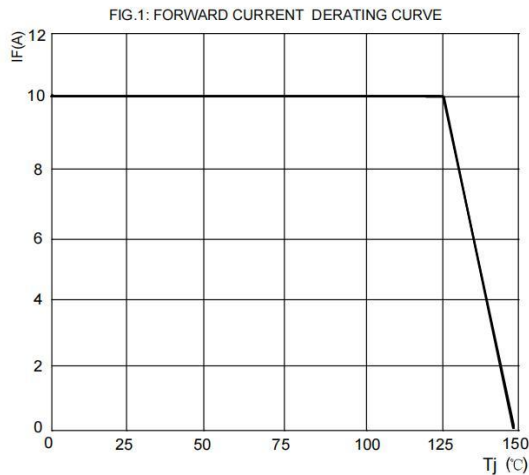
PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220F	θ_{JA}	60	$^{\circ}\text{C/W}$
	TO-252		110	$^{\circ}\text{C/W}$
Junction to Case	TO-220F	θ_{JC}	4	$^{\circ}\text{C/W}$
	TO-252		6	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS (TA=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	V(BR)R	IR=0.2mA	45			V
Forward Voltage Drop	VFM	IF=5A			0.7	V
Leakage Current (Note 1)	IRM	VR=45V			200	μA

Notes: 1. Short duration pulse test used to minimize self-heating effect.
 2. Thermal resistance junction to case mounted on heatsink.

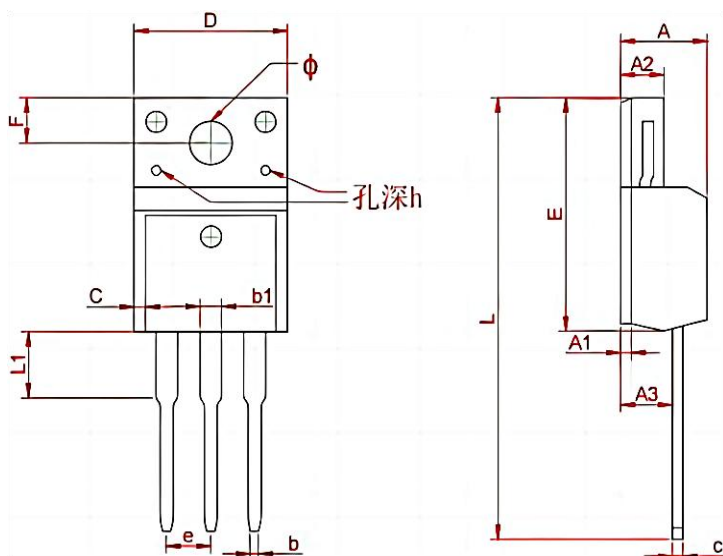
TYPICAL CHARACTERISTICS



MBR(D/F)1045CT

SCHOTTKY BARRIER RECTIFIER

TO - 220F Package Outline Dimensions



Symbol	Dimensions In Millimeters	
	Min	Max
A	4.300	4.750
A1	0.7 REF	
A2	2.300	2.850
A3	2.500	2.900
b	0.380	0.420
b1	1.220	1.280
C	1.08	1.200
c	0.480	0.520
D	10.15	10.450
E	15.700	15.950
e	2.574 TYP	
F	3.470 REF	
y	3.200 REF	
h	0.000	0.800
L	28.780	28.900
L1	2.990	3.100

TO - 220F Packing Information

Package version	Tube dimensions LxWxH (mm)	Per Tube (pcs)	Tube per box	Inner box dimensions LxWxH (mm)	PCS/ Inner box	Outer box dimensions LxWxH(mm)	PCS/ Outer box
TO-220F	530*32*7	50	20	580*155*50	1000	602*277*188	5000