

MBRF10100CT

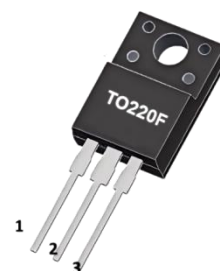
SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

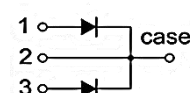
The MBRF10100CT meet the ROHS and Green Product requirement with full function reliability approved.

FEATURE

- * Schottky Barrier Chip
- * Guard Ring Die Construction for Transient Protection
- * Low Power Loss,High Efficiency
- * High Surge Capability
- * High Current Capability and Low Forward Voltage Drop
- * For Use in Low Voltage, High Frequency Inverters,Free Wheeling, and Polarity Protection Applications



1. ANODE
2. CATHODE
3. ANODE



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

SYMBOL	PARAMETER		VALUE	UNIT
VRRM	Peak repetitive reverse voltage		100	V
VRWM	Working peak reverse voltage		100	V
VR	DC blocking voltage		100	V
VR(RMS)	RMS reverse voltage		70	V
IO	Average rectified output current		10 (5*2)	A
IFSM	Non-Repetitive peak forward surge current(8.3ms half sine wave)		100*2	A
Tj	Junction temperature		175	°C
Tstg	Storage temperature		-55 ~ +150	°C
RθJA	Thermal Resistance fromJunction to Ambient	TO-220F	60	°C/W
RθJC	Thermal Resistance From Junction To Case	TO-220F	4	°C/W

Notes: bsolute 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.

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

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Reverse voltage	V(BR)	IR=0.1mA		100			V
Reverse current	IR	VR=100V				100	uA
Forward voltage	VF1	IF=3A	Tj=25°C		0.70		V
	VF2	IF=5A	Tj=25°C			0.85	V
	VF3	IF=10A	Tj=25°C			0.95	V

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

■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

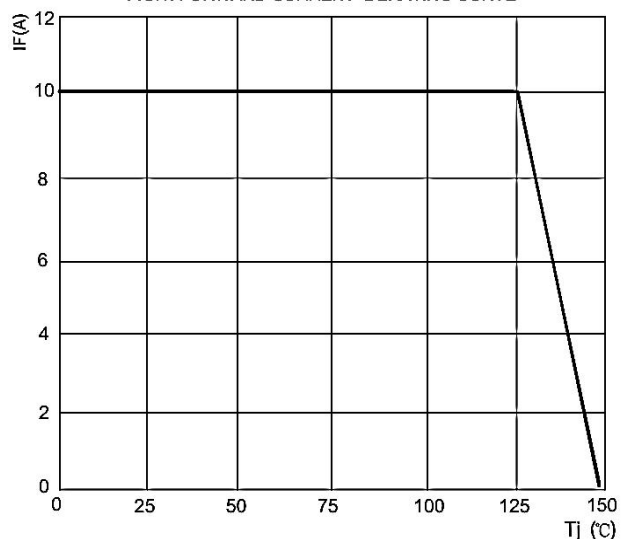


FIG.2: TYPICAL FORWARD CHARACTERISTICS

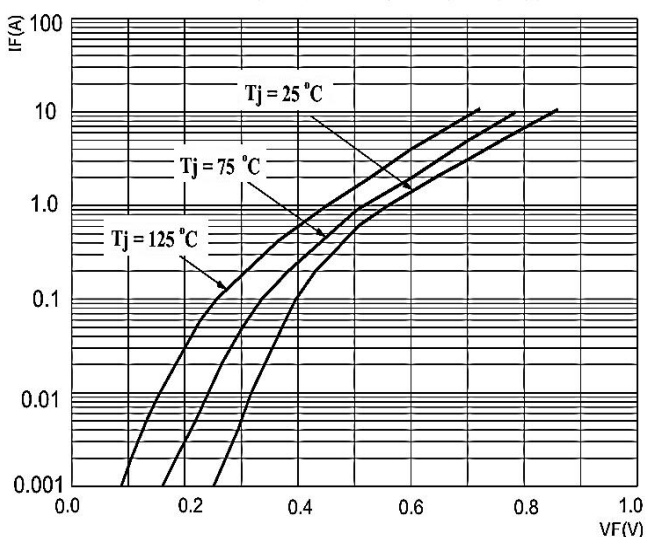


FIG.3: TOTAL CAPACITANCE DERATING CURVE

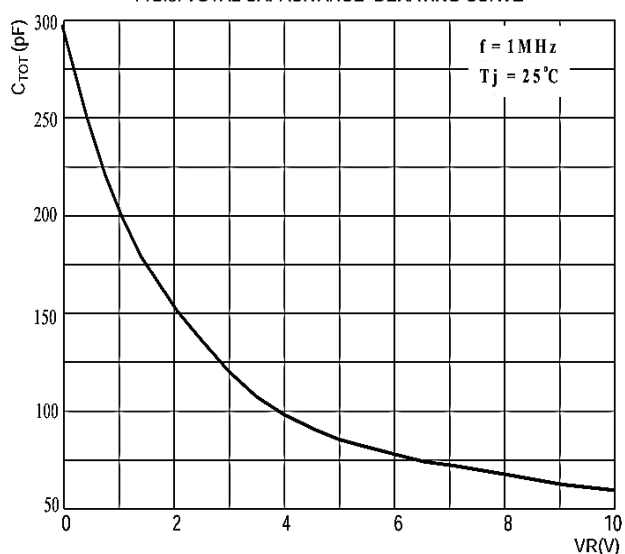
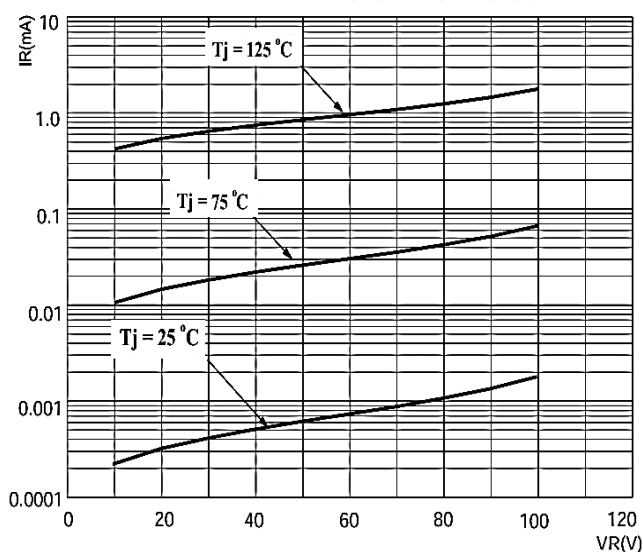


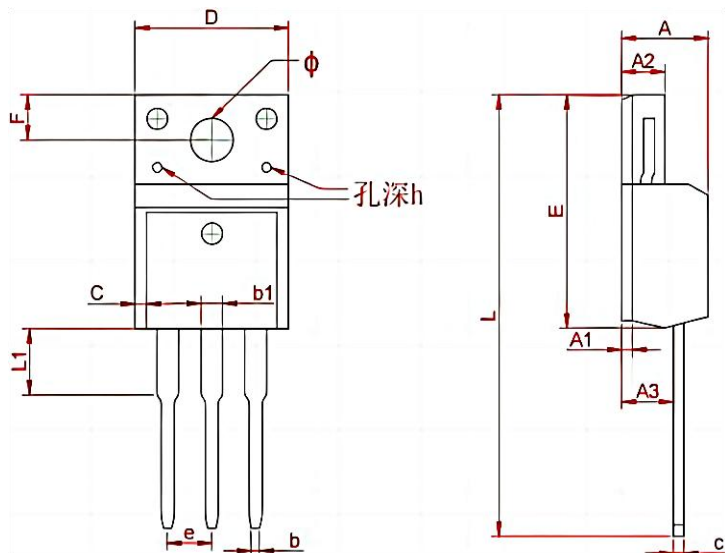
FIG.4: TYPICAL REVERSE CHARACTERISTICS



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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