



MBR10100CT

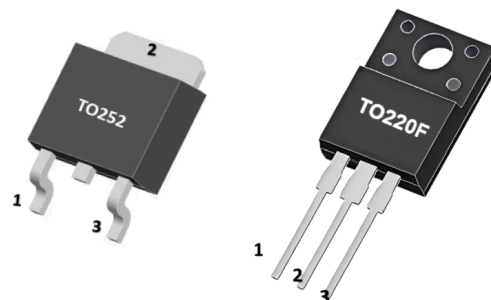
SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

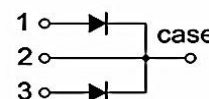
The MBR10100CT meet the ROHS and Green Product requirement with full function reliability approved.

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



MARKING



HY: HY LOGO

MBR10100CT=Device Code

XXXX=Date Code

Solid Dot=Green molding compound

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 from Junction to Ambient	TO-252	110	°C/W
		TO-220F	60	
RθJC	Thermal Resistance From Junction To Case	TO-252	6	°C/W
		TO-220F	4	

Notes: 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.



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

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Reverse voltage	$V_{(BR)}$	$I_R=0.1mA$		100			V
Reverse current	I_R	$V_R=100V$			1	5	μA
Forward voltage	V_{F1}	$I_F=3A$	$T_j=25^\circ C$		0.70		V
	V_{F2}	$I_F=5A$	$T_j=25^\circ C$		0.77	0.82	V
	V_{F3}	$I_F=10A$	$T_j=25^\circ C$			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

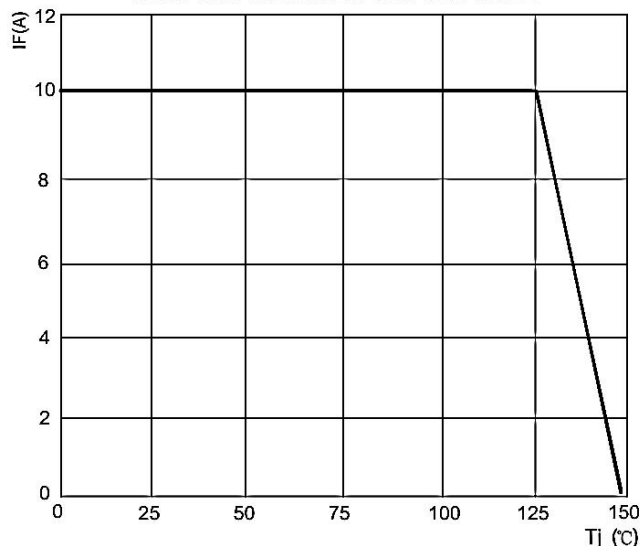


FIG.2: TYPICAL FORWARD CHARACTERISTICS

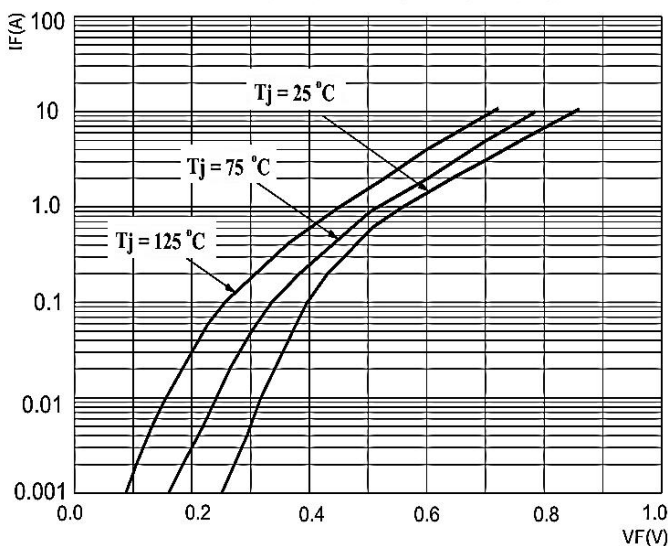


FIG.3: TOTAL CAPACITANCE DERATING CURVE

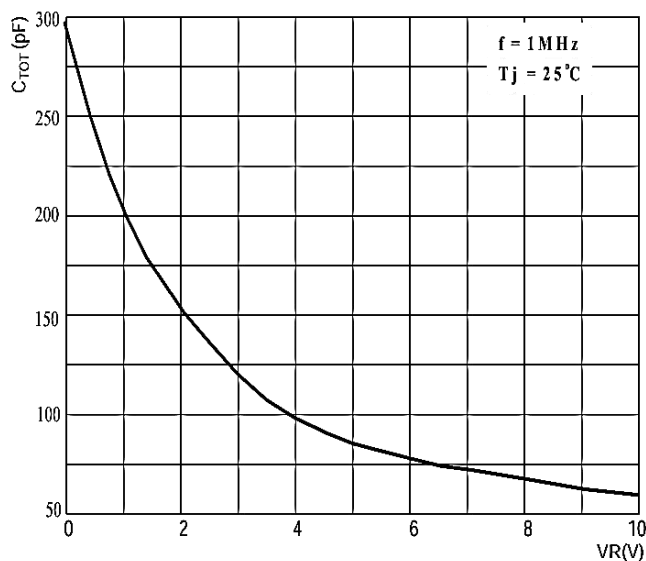
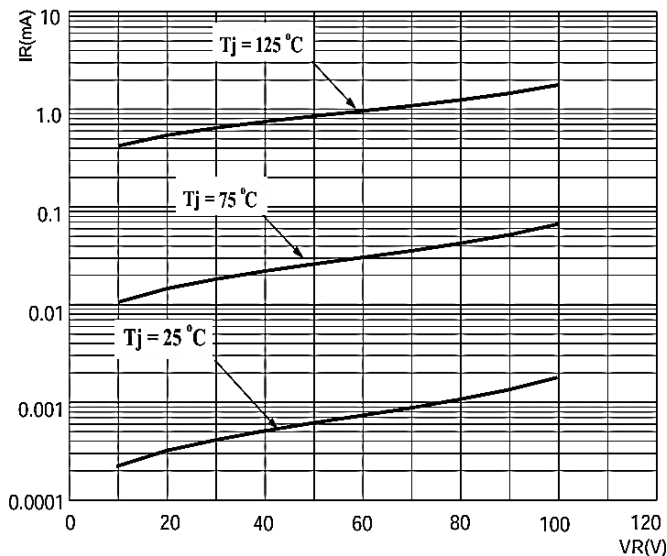


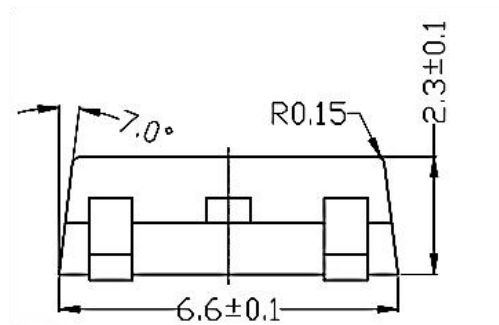
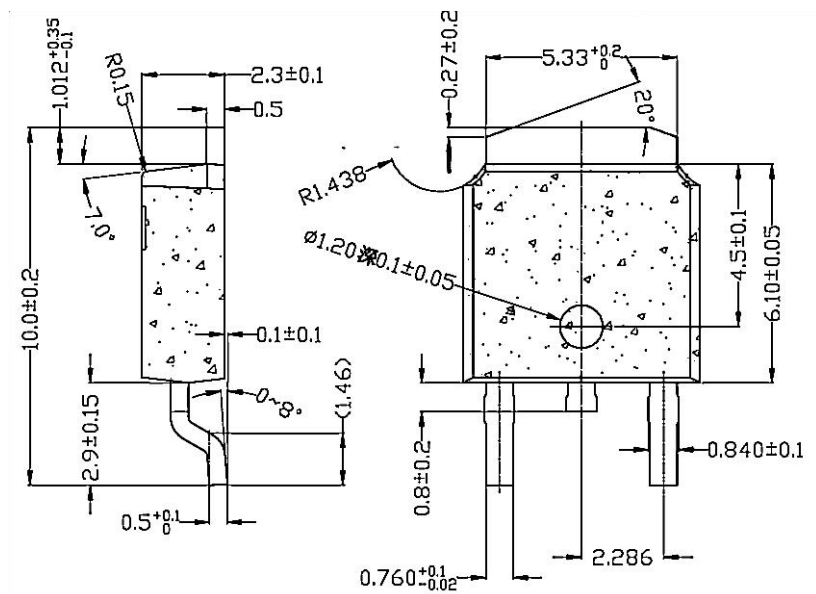
FIG.4: TYPICAL REVERSE CHARACTERISTICS



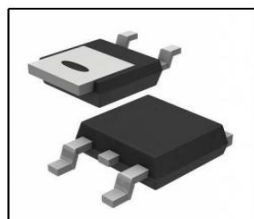
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SCHOTTKY BARRIER RECTIFIER

■ TO - 252 Package Outline Dimensions



■ TO - 252 Packing Information



2500PC
S/reel



2 Reel/BOX



5 Inner
Box



Inner box

Outer box

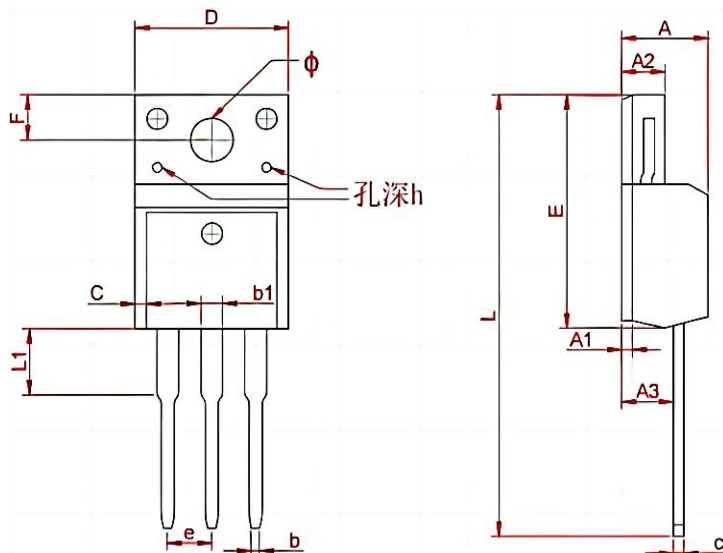
Package version	Reel dimensions $\Phi \times H$ (mm)	Per Reel (pcs)	Reels per box	Inner box dimensions $L \times W \times H$ (mm)	Outer box (pcs)	Outer box dimensions $L \times W \times H$ (mm)
T0-252	$\Phi 330 \times 20$	2500	2	360*340*50	25000	375*375*280



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TO - 220F Package Outline Dimensions

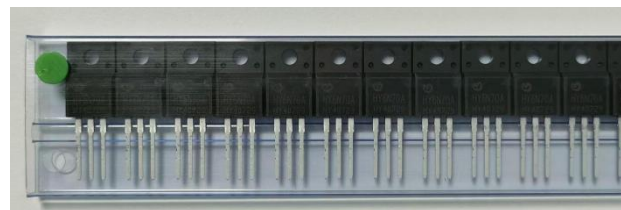


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max	Min	Max
A	4.300	4.750	0.169	0.185
A1	1.830 REF		0.072 REF	
A2	2.300	2.850	0.090	0.112
A3	2.500	2.900	0.098	0.114
b	0.400	0.420	0.016	0.016
b1	1.220	1.280	0.048	0.050
C	0.690	0.720	0.027	0.028
c	0.490	0.510	0.019	0.020
D	9.960	10.200	0.392	0.400
E	15.000	15.950	0.588	0.625
e	2.574 TYP		0.101TYP	
F	3.470 REF		0.136 REF	
y	3.200 REF		0.125 REF	
h	0.000	0.300	0.000	0.012
L	28.780	28.900	1.128	1.133
L1	2.990	3.100	0.117	0.122

TO - 220F Packing Information



50PCS



20 Tube



Outer Box

5 Inner
Box



Inner Box

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