

MBR(D/F)30100CT

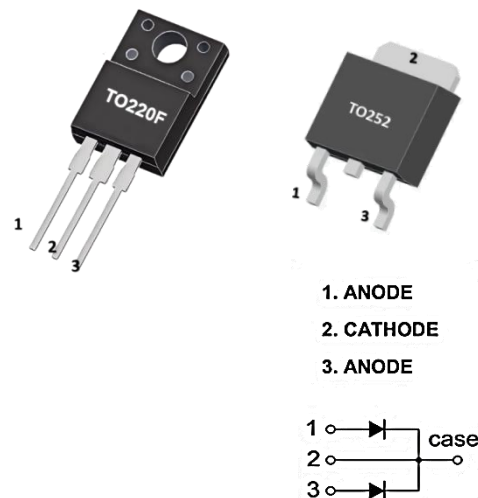
SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

The MBR(D/F)30100CT meet the ROHS and Green Product requirement with full function reliability approved.

FEATURE

- * Low Power Loss,High Efficiency
- * Guard Ring Die Construction for Transient Protection
- * High Current Capability and Low Forward Voltage Drop



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



MBR(D/F)30100CT=Device Code
 XXXX(X)=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			V
VR	DC blocking voltage			V
VR(RMS)	RMS reverse voltage		70	V
IO	Average forward rectified output current		30(15*2)	A
IFSM	Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		200*2	A
Tj	Junction temperature		175	°C
Tstg	Storage temperature		-55~+150	°C
RθJA	Thermal Resistance from Junction to Ambient	TO-252	62.5	°C/W
			62.5	
RθJC	Thermal Resistance From Junction To Case	TO-220F	3	°C/W
			2	

Note: 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)	IR=0.2mA	100			V
Instantaneous Reverse Current	IR	VR=100V	Tj=25°C		100	μA
			Tj=125°C		5.0	mA
Instantaneous Forward Voltage Drop	VF	IF=5A	Tj=25°C		0.85	V
			Tj=125°C		0.64	V
		IF=15A	Tj=25°C		1.00	V
			Tj=125°C		0.70	V

Notes: Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2.0%

TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

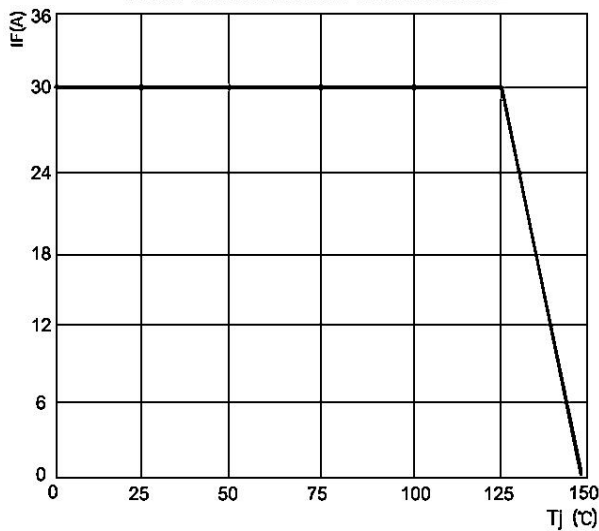


FIG.2: TYPICAL FORWARD CHARACTERISTICS

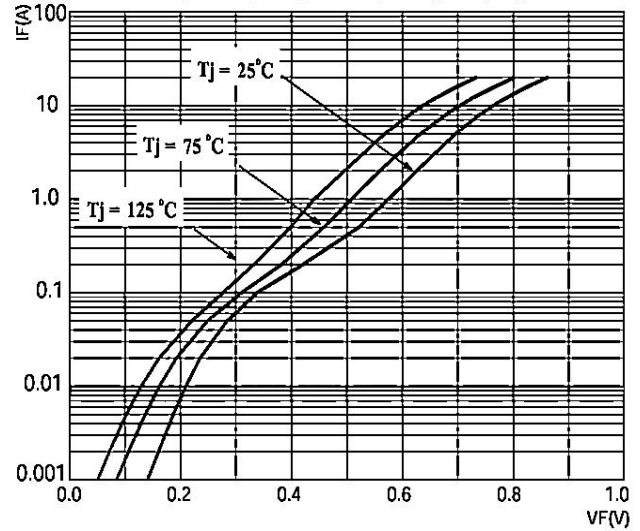


FIG.3: TOTAL CAPACITANCE DERATING CURVE

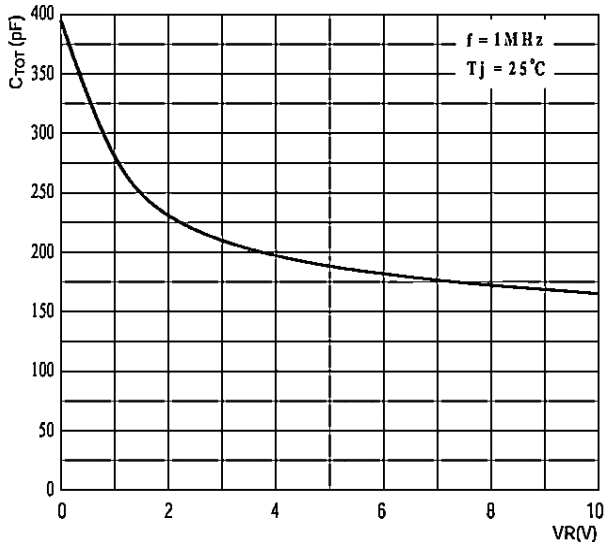
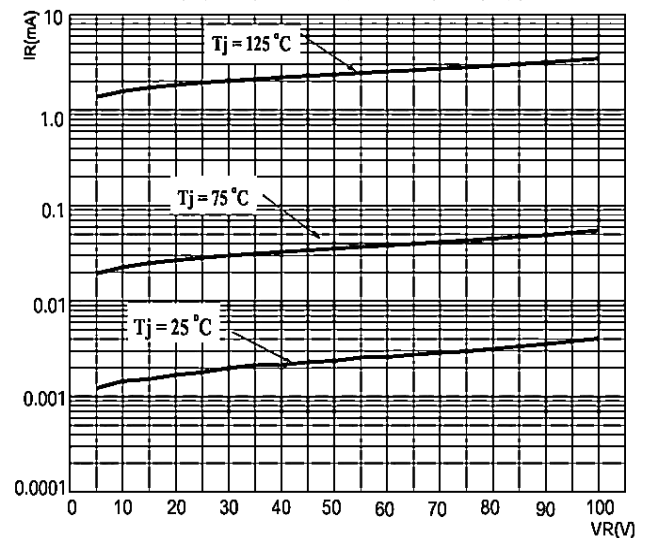


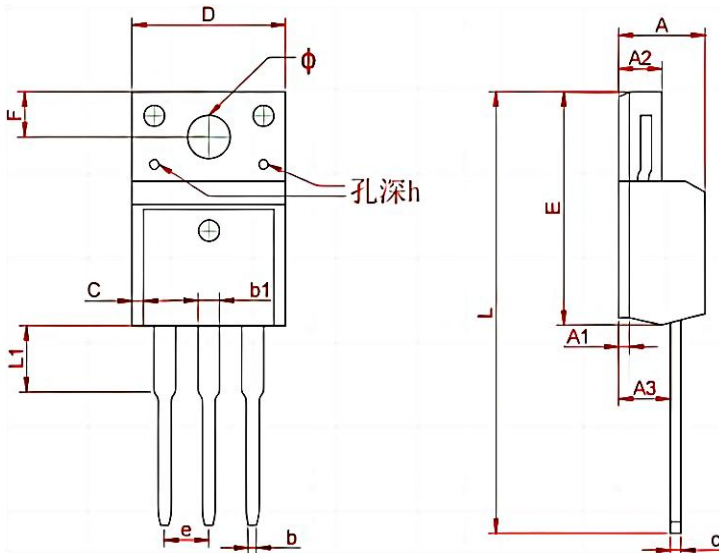
FIG.4: TYPICAL REVERSE CHARACTERISTICS



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TO - 220F Package Outline Dimensions

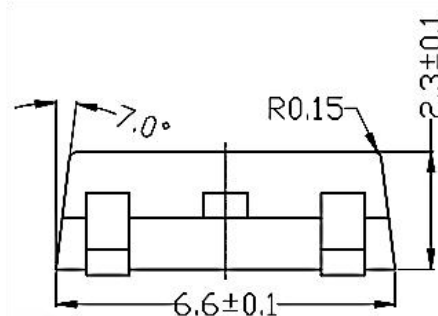
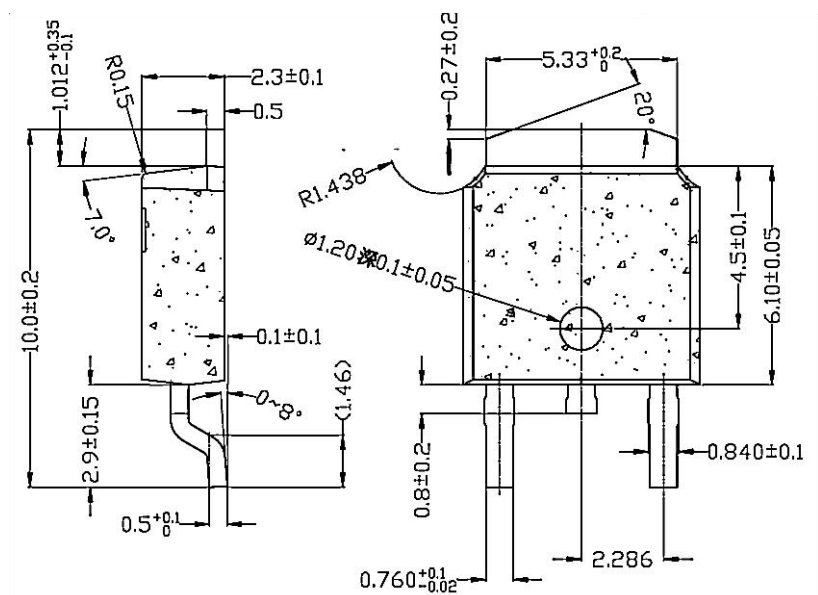


Symbol	Dimensions In Millimeters	
	Min	Max
A	4.300	4.750
A1	0.7 REF	
A2	2.300	2.850
A3	2.500	2.900
b	0.380	0.420
b1	1.220	1.280
C	1.08	1.200
c	0.480	0.520
D	10.15	10.450
E	15.700	15.950
e	2.574 TYP	
F	3.470 REF	
y	3.200 REF	
h	0.000	0.800
L	28.780	28.900
L1	2.990	3.100

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

■ **TO - 252 Package Outline Dimensions**



■ **TO - 252 Packing Information**

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