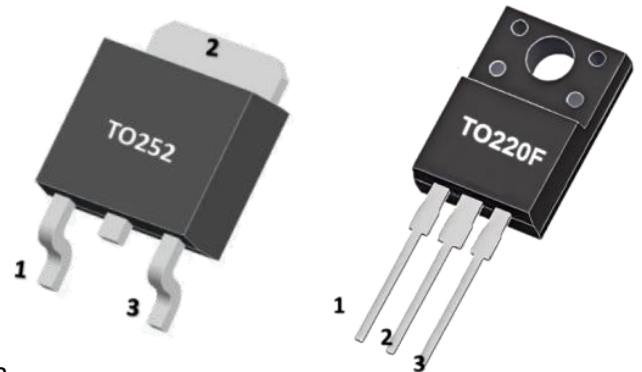


DESCRIPTION

The MBR30100CS/CT 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

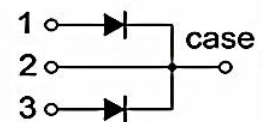


WPM : LOGO

MBR30100CT=Device Code (TO-220F)

MBR30100CS=Device Code (TO-252)

1. ANODE
2. CATHODE
3. ANODE



ABSOLUTE MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$, 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 fromJunction 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.

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	$V_{(BR)}$	$I_R=0.1\text{mA}$	100			V
Instantaneous Reverse Current	I_R	$V_R=100\text{V}$		$T_J=25^\circ\text{C}$	5.0	μA
				$T_{J1}=25^\circ\text{C}$	5.0	mA
Instantaneous Forward Voltage Drop	V_{F1}	$I_F=10\text{A}$	$T_J=25^\circ\text{C}$	0.772	0.82	V
			$T_{J1}=25^\circ\text{C}$	0.64		V
		$I_F=15\text{A}$	$T_J=25^\circ\text{C}$	0.833	0.85	V
			$T_{J1}=25^\circ\text{C}$	0.70		V

Notes: Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2.0\%$

TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

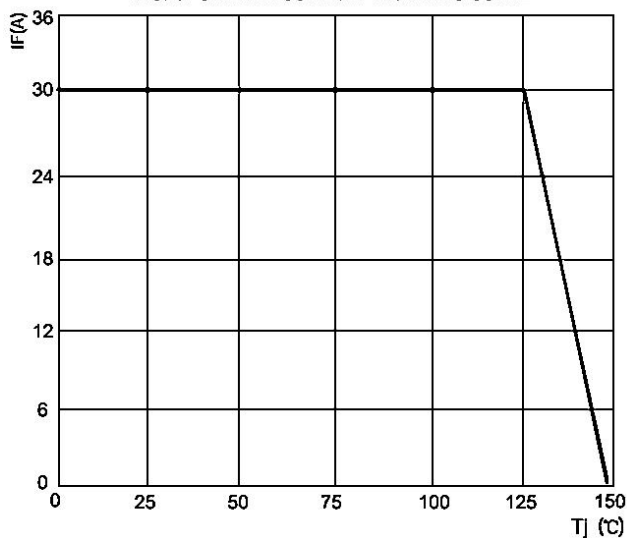


FIG.2: TYPICAL FORWARD CHARACTERISTICS

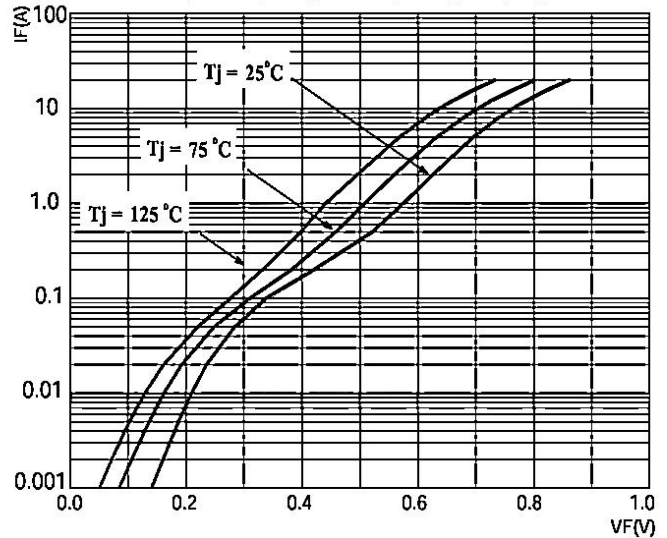


FIG.3: TOTAL CAPACITANCE DERATING CURVE

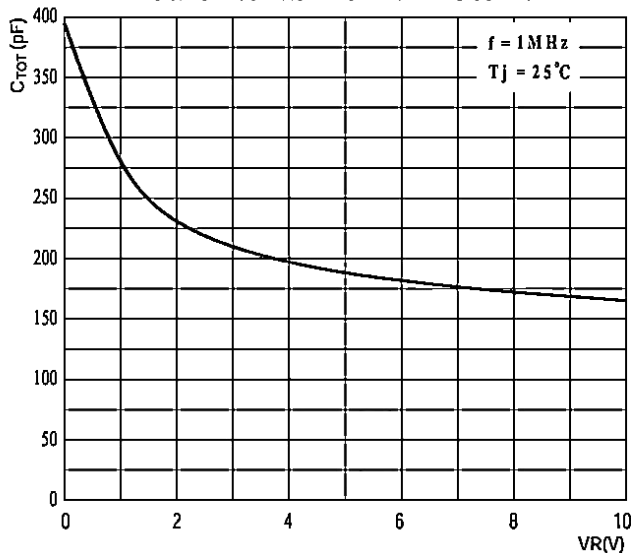
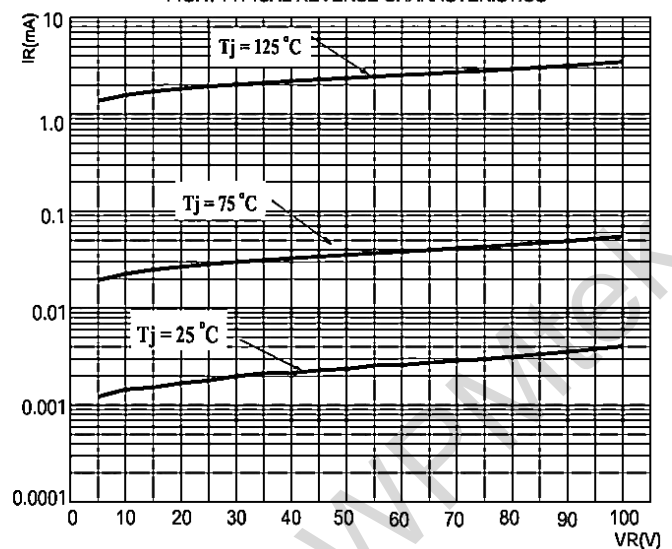
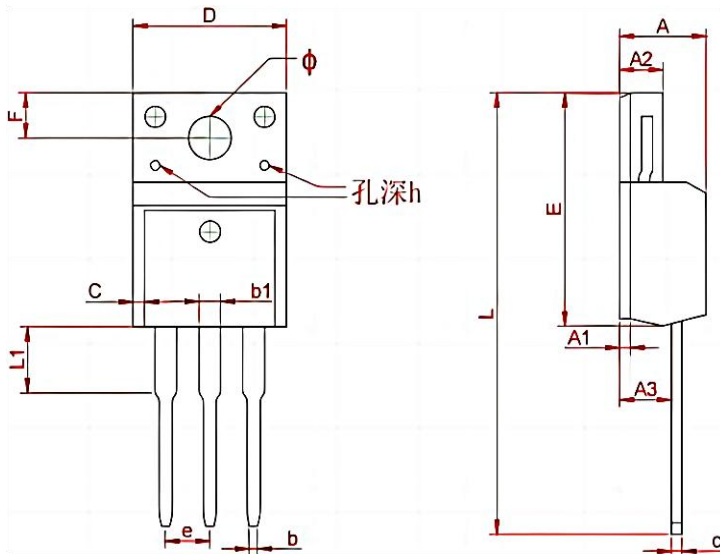


FIG.4: TYPICAL REVERSE CHARACTERISTICS



TO - 220F Package Outline Dimensions

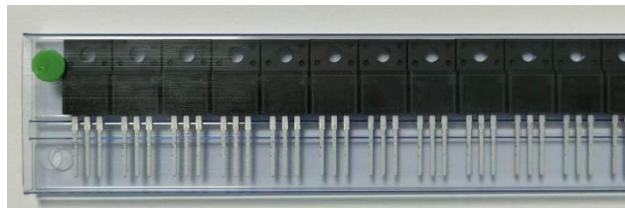


Symbol	Dimensions In Millimeters	
	Min	Max
A	4.300	4.750
A1	0.7 REF	
A2	2.300	2.850
A3	2.500	2.900
b	0.380	0.420
b1	1.220	1.280
C	1.08	1.200
c	0.480	0.520
D	10.15	10.450
E	15.700	15.950
e	2.574 TYP	
F	3.470 REF	
y	3.200 REF	
h	0.000	0.800
L	28.780	28.900
L1	2.990	3.100

TO - 220F Packing Information



50PCS



20 Tube



Outer Box

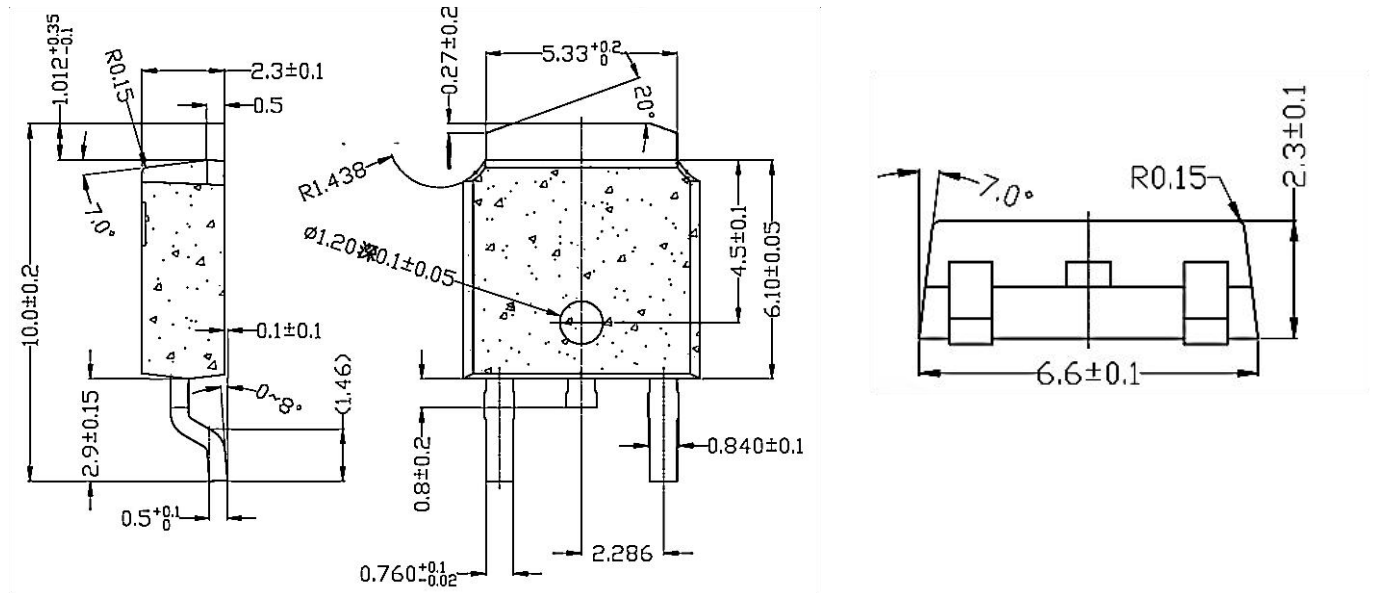
5 Inner
Box



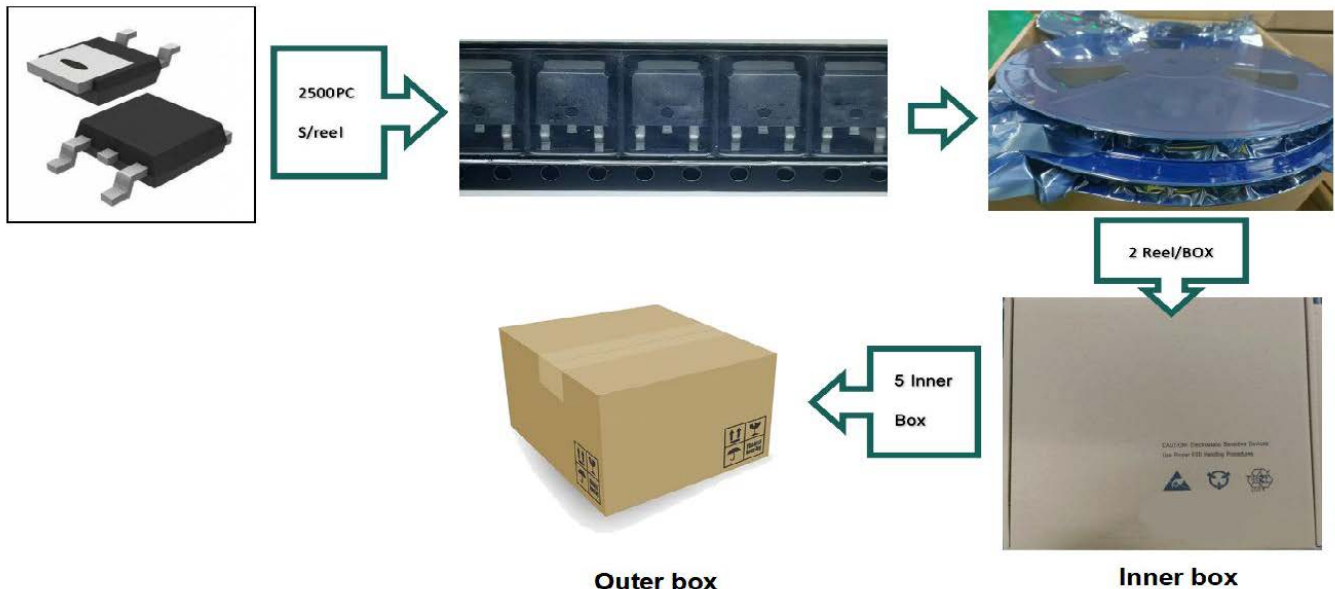
Inner Box

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

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

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