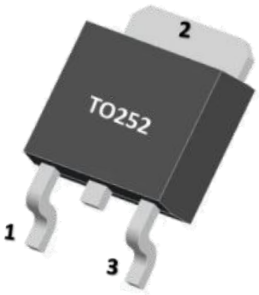
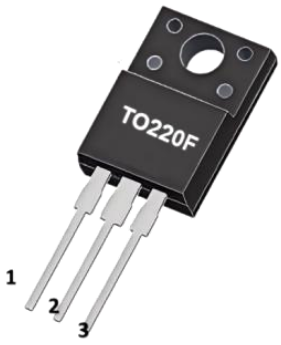
DESCRIPTION

The MBR30150CS/CT meet the ROHS and Green Product requirement with full function reliability approved.





FEATURE

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

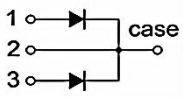
MARKING

WPM : LOGO

MBR30150CT=Device Code (TO-220F)

MBR30150CS=Device Code (TO-252)

1. ANODE
2. CATHODE
3. ANODE



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

Symbol	Parameter		VALUE	Unit
V_{RRM}	Peak repetitive reverse voltage		150	V
V_{RWM}	Working peak reverse voltage			
V_R	DC blocking voltage			
$V_{R(RMS)}$	RMS reverse voltage		105	V
I_O	Average rectified output current		30(15*2)	A
I_{FSM}	Non-Repetitive peak forward surge current (8.3ms half sine wave)		200*2	A
$R_{\Theta Jc}$	Thermal resistance from junction to case , Tc=25℃	TO-252	2	℃/W
		TO-220F	3.0	
$R_{\Theta JA}$	Thermal resistance from junction to ambient	TO-252	62	℃/W
		TO-220F	62.5	
T_j	Junction temperature		175	℃
T_{stg}	Storage temperature		-55~+150	℃

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.

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

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Reverse voltage	$V_{(BR)}$	I_R=0.1mA		150			V
Reverse current	I_R	V_R=150V	Tj=25℃		5.0	100	μA
			Tj=125℃		5.0		mA
Forward voltage	V_F	I_F=10A	Tj=25℃		0.822	0.86	V
			Tj=125℃		0.68		V
		I_F=15A	Tj=25℃		0.856	0.90	V
			Tj=125℃		0.74		V

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

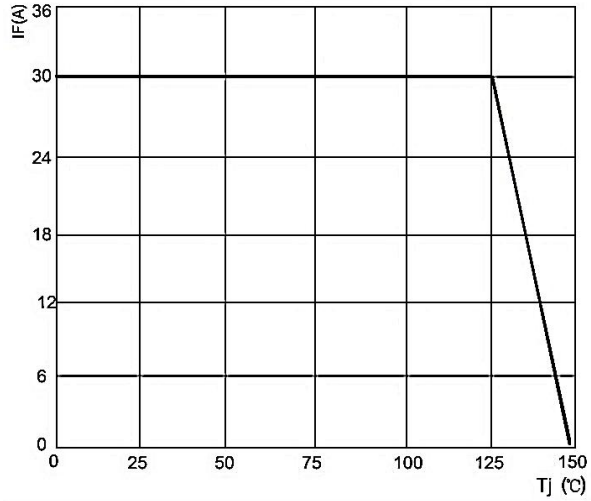


FIG.2: TYPICAL FORWARD CHARACTERISTICS

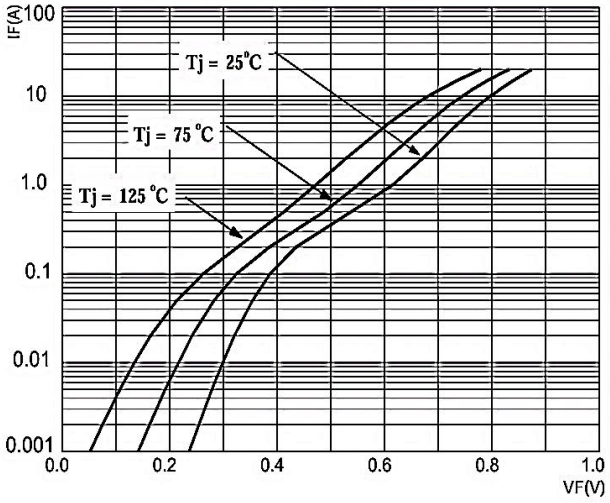


FIG.3: TOTAL CAPACITANCE DERATING CURVE

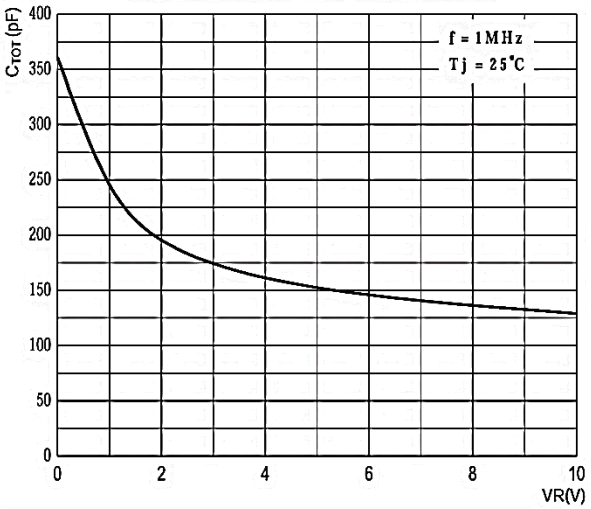
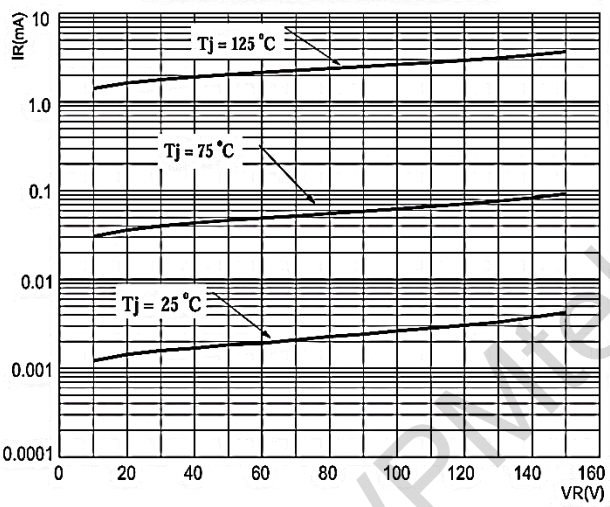
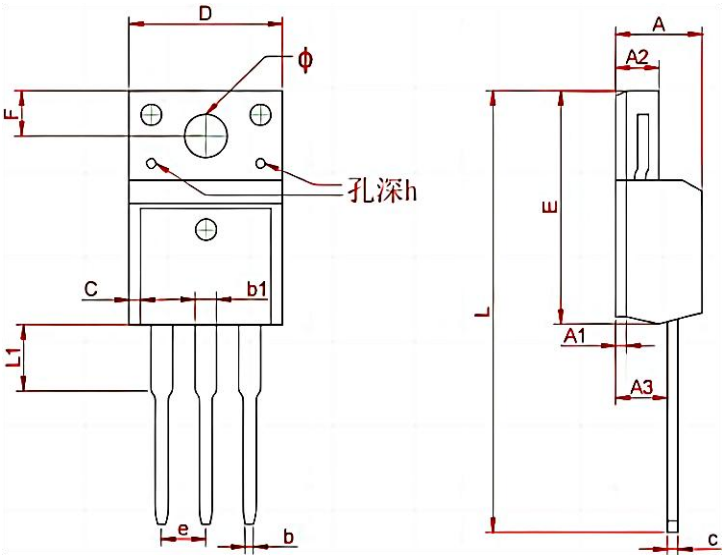


FIG.4: TYPICAL REVERSE CHARACTERISTICS



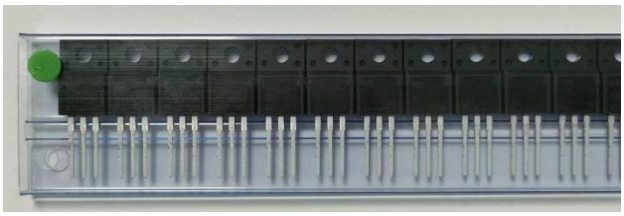
TO - 220F Package Outline Dimensions



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

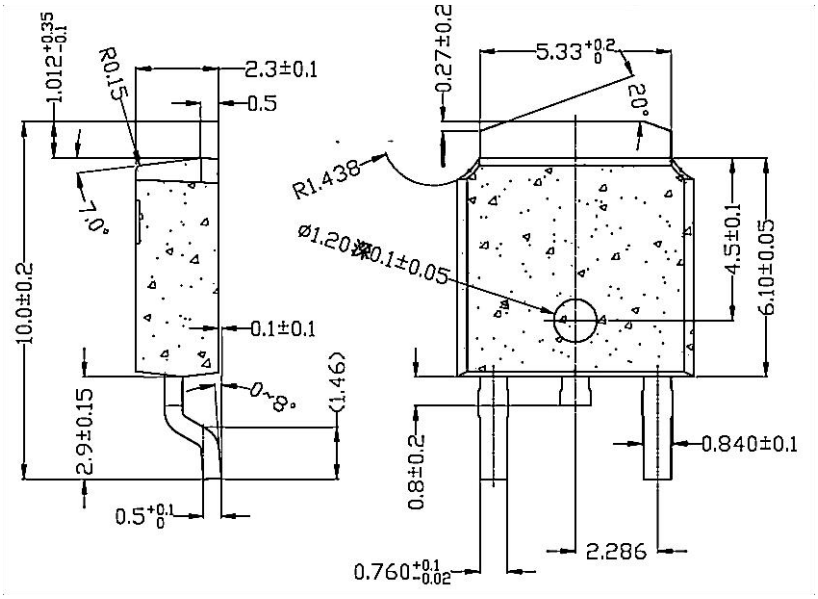
Inner Box

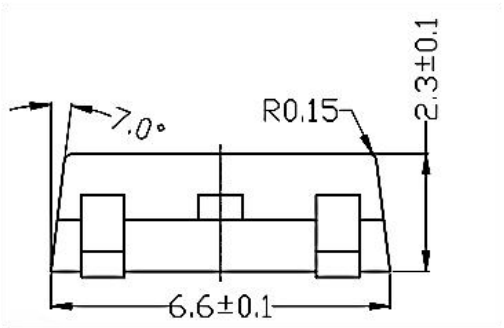
5 Inner Box

Outer Box

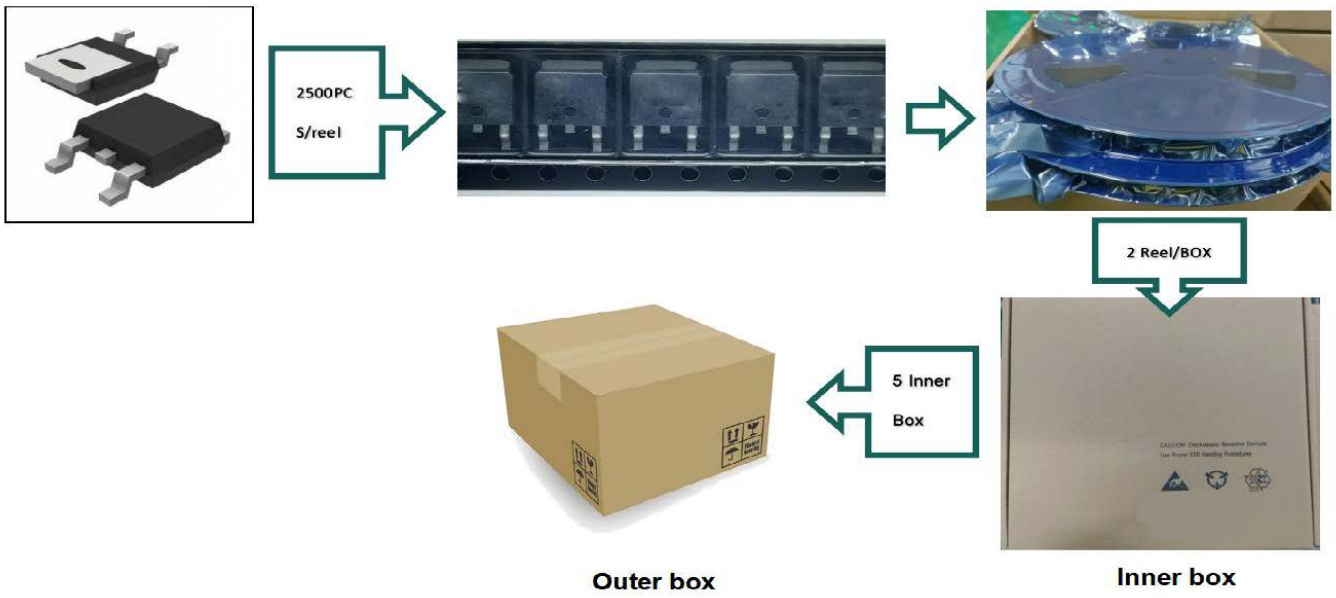
Package version	Tube dimensions LxW×H (mm)	Per Tube (pcs)	Tube per box	Inner box dimensions LxW×H (mm)	PCS/ Inner box	Outer box dimensions L×W×H(mm)	PCS/ Outer box
TO-220F	530*32*7	50	20	580*155*50	1000	602*277*188	5000

TO - 252 Package Outline Dimensions





TO - 252 Packing Information



Package version	Reel dimensions Φ×H (mm)	Per Reel (pcs)	Reels per box	Inner box dimensions L×W×H(mm)	Outer box (pcs)	Outer box dimensions L×W×H (mm)
TO-252	Φ330*20	2500	2	360*340*50	25000	375*375*280