

DESCRIPTION

The MBR2065CS/CT meet the ROHS and Green Product requirement with full function reliability approved.

FEATURE

- *High Surge Capacity
- *For Use In Low Voltage,High Frequency Inverters, Free Wheeling and Polarity Protection Applications.
- *Metal Silicon Junction,Majority Carrier Conduction.
- *High Current Capacity,Low Forward Voltage Drop.
- *Guard Ring for Over Voltage Protection.

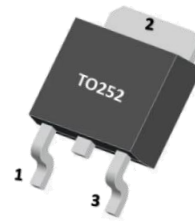
MARKING



WPM : LOGO

MBR2065CT=Device Code (TO-220F)

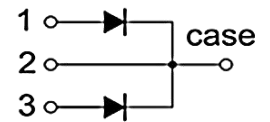
MBR2065CS=Device Code (TO-252)



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		65	V
VRWM	Working peak reverse voltage		65	V
VR	DC blocking voltage		65	V
VR(RMS)	RMS reverse voltage		45.5	V
IO	Average rectified output current		20 (10*2)	A
IFSM	Non-Repetitive peak forward surge current (8.3ms half sine wave)		150*2	A
Tj	Junction temperature		150	$^{\circ}\text{C}$
Tstg	Storage temperature		-55 ~ +150	$^{\circ}\text{C}$
R θ JA	Thermal Resistance from Junction to Ambient	TO-252	100	$^{\circ}\text{C/W}$
		TO-220F	58	
R θ JC	Thermal Resistance From Junction To Case	TO-252	5	$^{\circ}\text{C/W}$
		TO-220F	3	

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	$V_{(BR)}$	$I_R=0.1\text{mA}$	65			V
Reverse current	I_R	$V_R=65\text{V}$	$T_j=25^\circ\text{C}$		50	μA
			$T_j=125^\circ\text{C}$	5.0		mA
Forward voltage	V_F	$I_F=5\text{A}$	$T_j=25^\circ\text{C}$	0.60		V
			$T_j=125^\circ\text{C}$	0.54		V
		$I_F=10\text{A}$	$T_j=25^\circ\text{C}$	0.72	0.75	V
			$T_j=125^\circ\text{C}$	0.62		V

*Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2.0\%$

TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

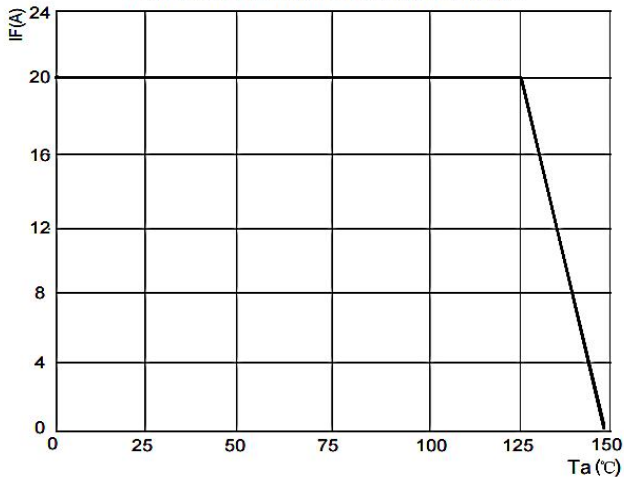


FIG.2: TYPICAL FORWARD CHARACTERISTICS

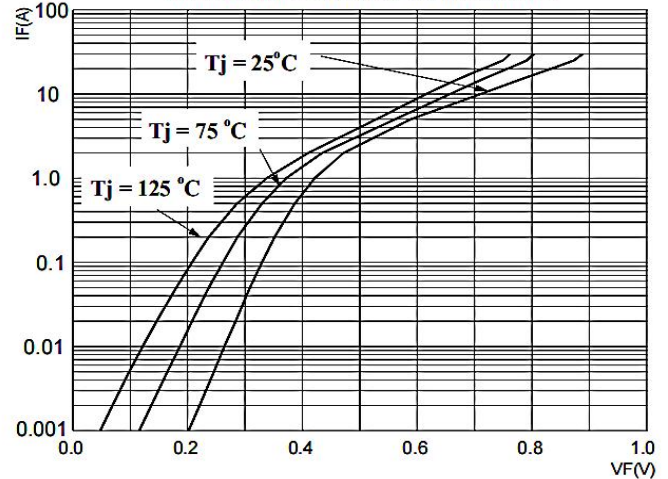


FIG.3: TOTAL CAPACITANCE DERATING CURVE

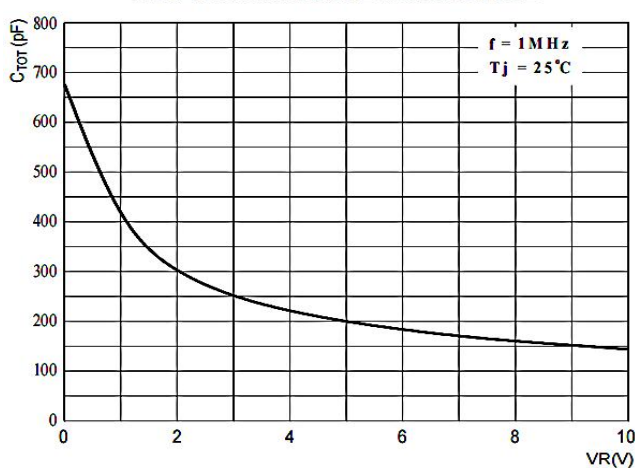
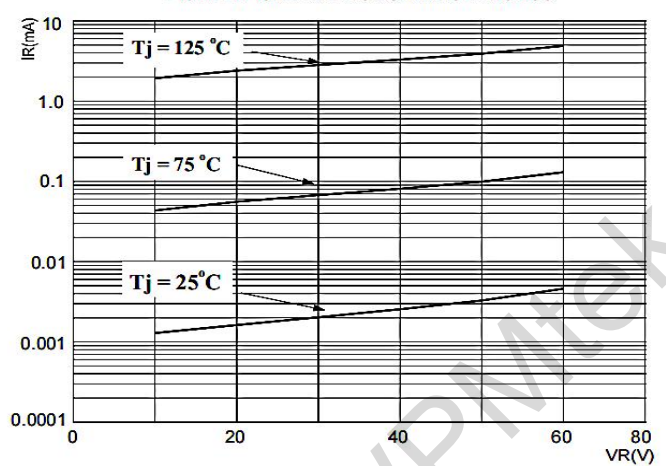
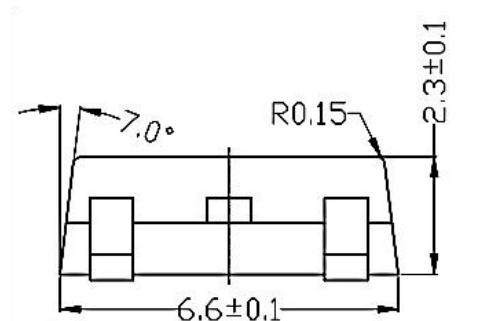
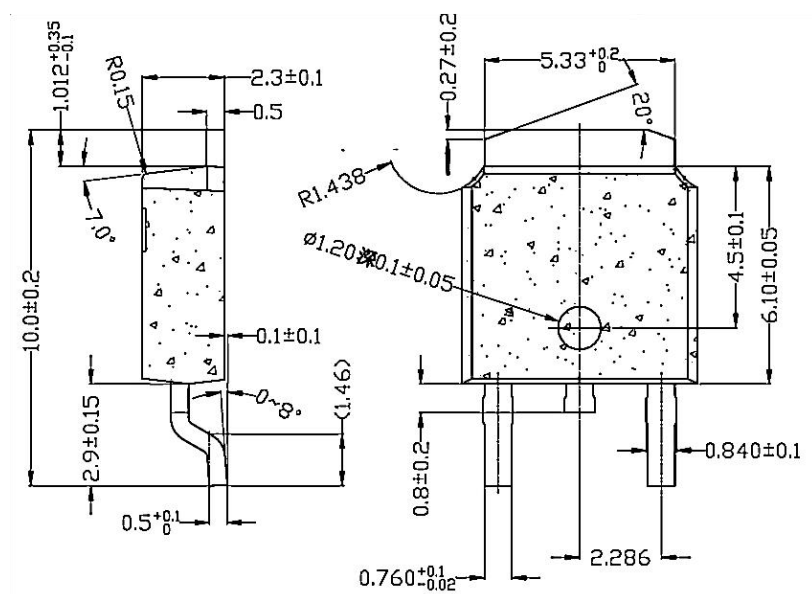


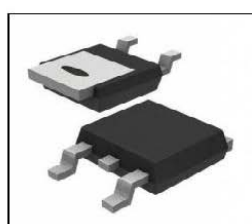
FIG.4: TYPICAL REVERSE CHARACTERISTICS



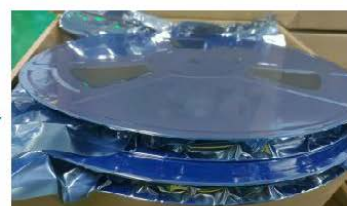
TO - 252 Package Outline Dimensions



TO - 252 Packing Information



2500PC
S/reel



2 Reel/BOX



5 Inner
Box

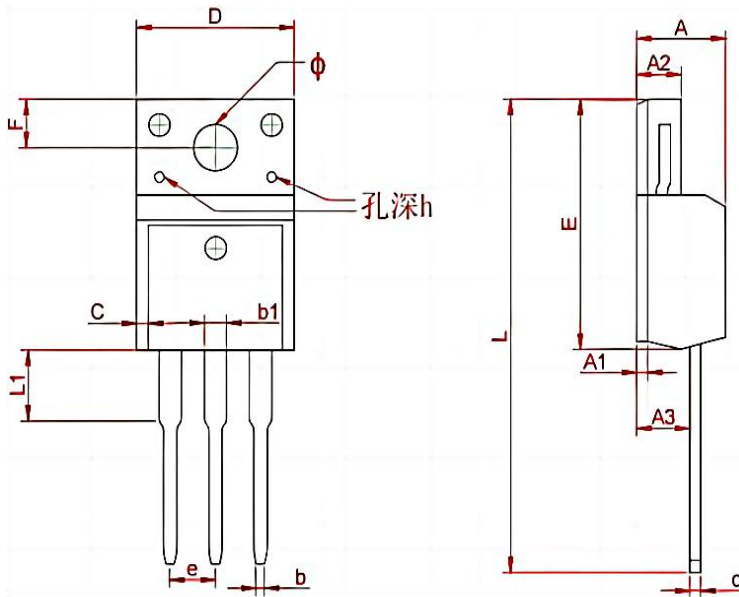


Outer box

Inner 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

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



5 Inner
Box



Outer 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

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