

## DESCRIPTION

The MBR4065CT is a 40A Schottky barrier rectifier. It uses our advanced technology to provide the customers with high surge capability, high efficiency, high current capability, low power loss and low forward voltage drop, etc. The MBR4065CT is suitable for free wheeling and polarity protection, etc.



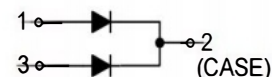
## FEATURE

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

## MARKING



WPM : LOGO  
MBR4065CT=Device Code



## 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	Per Leg	20
		Total	40
IFSM	Non-Repetitive peak forward surge current ( 8.3ms half sine wave)	250*2	A
T <sub>j</sub>	Junction temperature	150	°C
T <sub>stg</sub>	Storage temperature	-55 ~ +150	°C
R <sub>θJA</sub>	Thermal Resistance from Junction to Ambient	58	°C/W
R <sub>θJC</sub>	Thermal Resistance From Junction To Case	3	°C/W

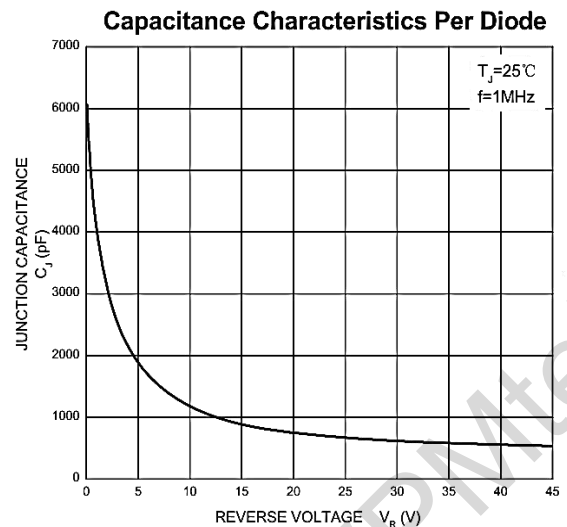
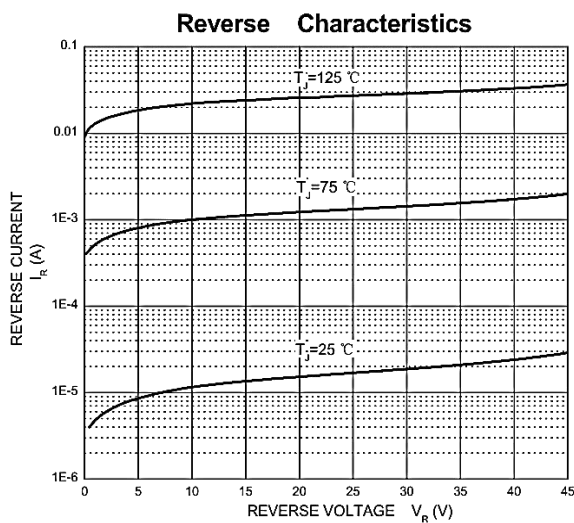
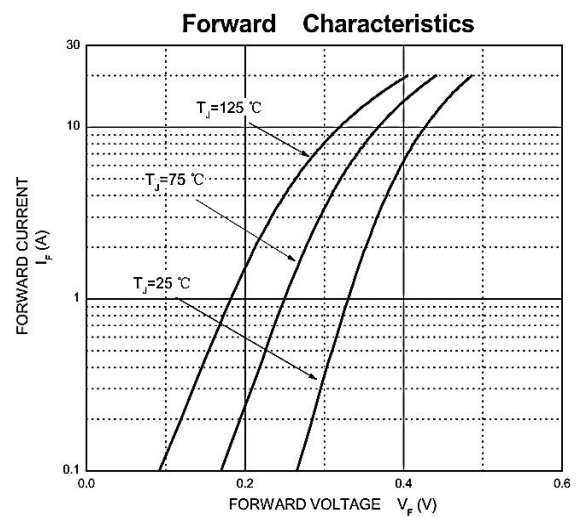
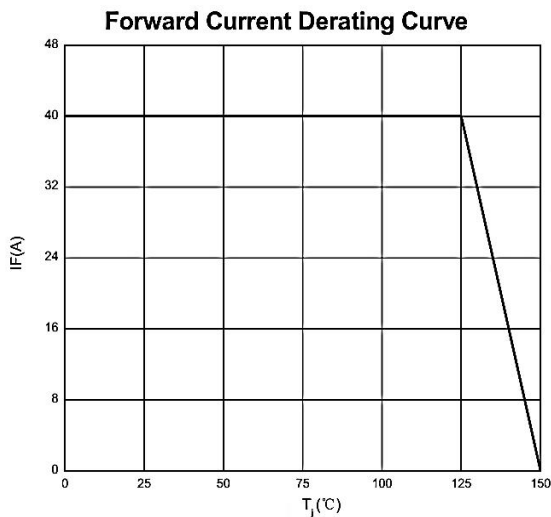
Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

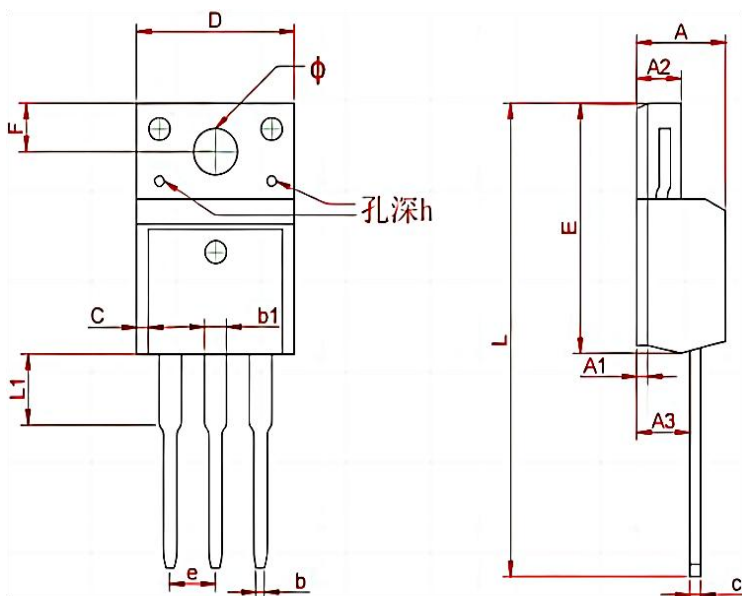
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	$V_{(BR)}$	$I_R=1\text{mA}$	65			V
Reverse current	$I_R$	$V_R=65\text{V}$	$T_J=25^\circ\text{C}$	6.51	100	$\mu\text{A}$
			$T_J=125^\circ\text{C}$	25		mA
Forward voltage	$V_F$	$I_{F1}=10\text{A}$	$T_J=25^\circ\text{C}$	0.62	0.7	V
		$I_{F2}=20\text{A}$	$T_J=25^\circ\text{C}$	0.77	0.8	V

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC  
2. Pulse test: pulse width  $\leq 300\mu\text{s}$ , duty cycles  $\leq 2.0\%$ .

**TYPICAL 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



5 Inner Box



Outer Box

Inner 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 LxW×H(mm)	PCS/ Outer box
TO-220F	530*32*7	50	20	580*155*50	1000	602*277*188	5000

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