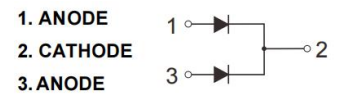


DESCRIPTION

The MBR40100CT 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

MBR40100CT=Device Code

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 rectified output current	Per Leg	20	A
		Total	40	
IFSM	Non-Repetitive peak forward surge current(8.3ms half sine wave)		250*2	A
Tj	Junction temperature		175	°C
Tstg	Storage temperature		-55~+150	°C
RθJA	Thermal Resistance fromJunction to Ambient		62.5	°C/W
RθJC	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.

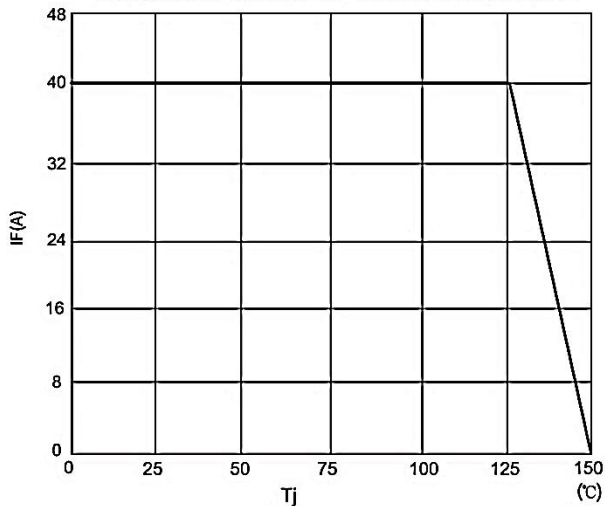
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	$V_{(BR)}$	$I_R=0.1\text{mA}$	100			V
Reverse current	I_R	$V_R=100\text{V}$	$T_j=25^\circ\text{C}$	20	100	μA
			$T_j=125^\circ\text{C}$	20		mA
Forward voltage	V_F	$I_F=10\text{A}$	$T_j=25^\circ\text{C}$	0.53		V
			$T_j=125^\circ\text{C}$	0.50		V
		$I_F=20\text{A}$	$T_j=25^\circ\text{C}$	0.67	0.72	V
			$T_j=125^\circ\text{C}$	0.64		V

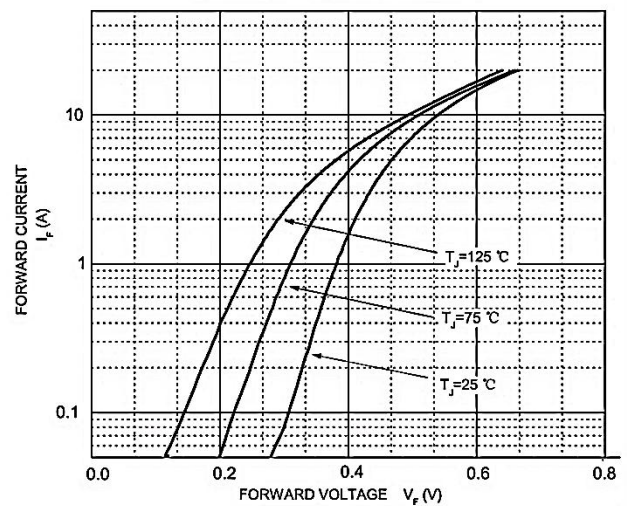
Notes: 1. Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycles $\leq 2.0\%$.

TYPICAL CHARACTERISTICS

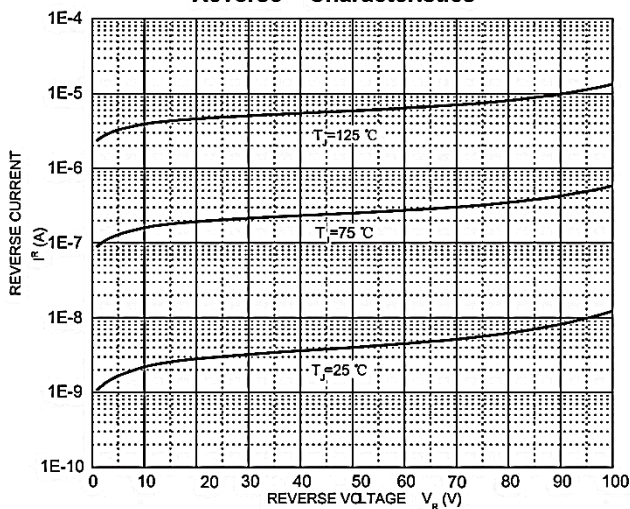
FORWARD CURRENT DERATING CURVE



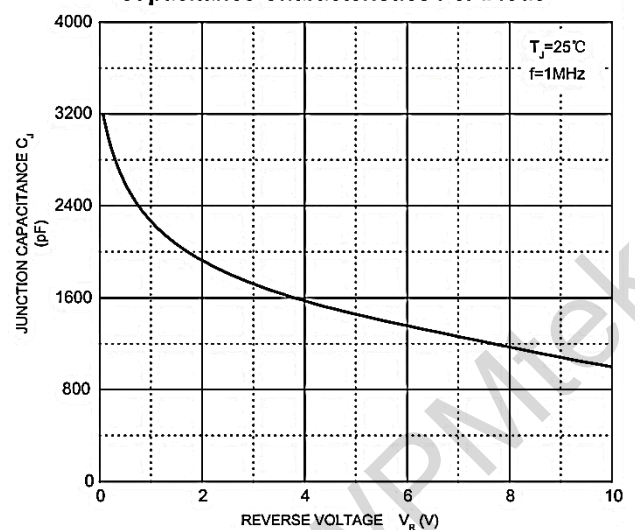
Forward Characteristics



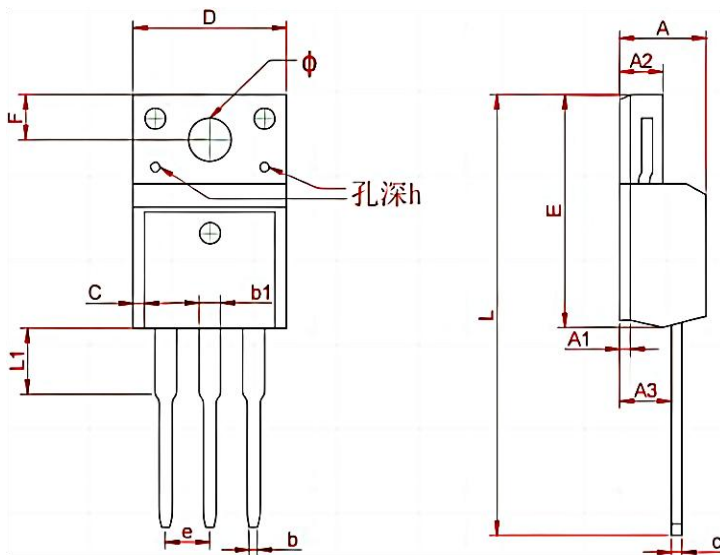
Reverse Characteristics



Capacitance Characteristics Per Diode



TO - 220F Package Outline Dimensions

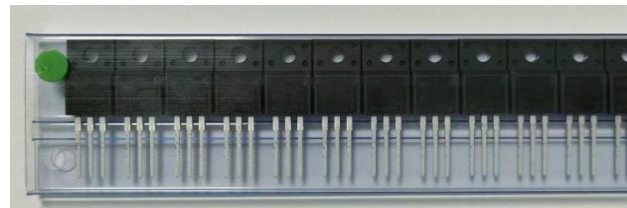


Symbol	Dimensions In Millimeters	
	Min	Max
A	4.300	4.750
A1	0.7 REF	
A2	2.300	2.850
A3	2.500	2.900
b	0.380	0.420
b1	1.220	1.280
C	1.08	1.200
c	0.480	0.520
D	10.15	10.450
E	15.700	15.950
e	2.574 TYP	
F	3.470 REF	
y	3.200 REF	
h	0.000	0.800
L	28.780	28.900
L1	2.990	3.100

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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