DESCRIPTION

The MBR60100CT, MBR60100CTF, and MBR60100S are available in TO-220, TO-220F, and TO-263 Package.

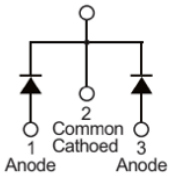
FEATURE

- Guard ring for stress protection
- Low forward voltage
- Low power loss/high efficiency
- High surge capacity
- Low stored charge majority carrier conduction
- Pb free package are available

ORDERING INFORMATION

Package Type	Part Number
TO-220 SPQ: 50pcs/Tube	MBR60100CT
TO-220F SPQ: 50pcs/Tube	MBR60100CTF
TO-263 SPQ: 800pcs/Reel	MBR60100S
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



PIN#	DESCRIPTION
1	ANODE
2	CATHODE
3	ANODE

ABSOLUTE MAXIMUM RATINGS

V_{RRM}, Peak repetitive reverse voltage		100V
Io, Average rectified output current	Total	60A
	Per leg	30A
I_{FSM}, Non-repetitive peak forward surge current 8.3ms single half sine-wave superimposed on reate load		500A
T_{STG}, Storage Temperature Range		-55℃ ~ +175℃
T_J, Junction Temperature Range		-55℃ ~ +175℃

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak repetitive reverse voltage	B_V	I_C =0.5mA,T_J =25℃	100	-	-	V
Forward voltage drop	V_F	I_F =30A,T_J=25℃	-	0.83	0.87	V
Leakage current	I_R	V_R=100V,T=25°C	-	-	0.05	mA
		V_R=100V,T=125°C	-	-	6	

ELECTRICAL CHARACTERISTICS CURVES

Fig 1. Typical Forward Voltage Per Diode

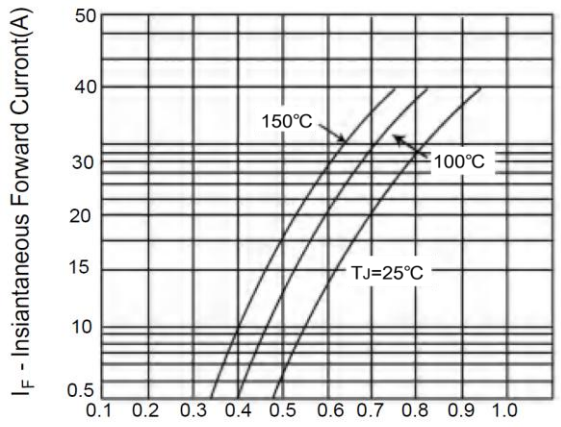


Figure 1. Typical Forward Voltage Per Diode

Fig 2. Typical Reverse Current Per Diode

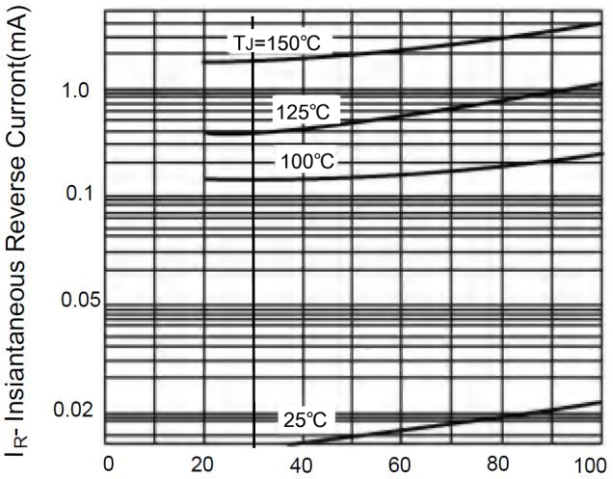


Figure 2. Typical Reverse Current Per Diode

Fig 3. Forward Current Derating Curve

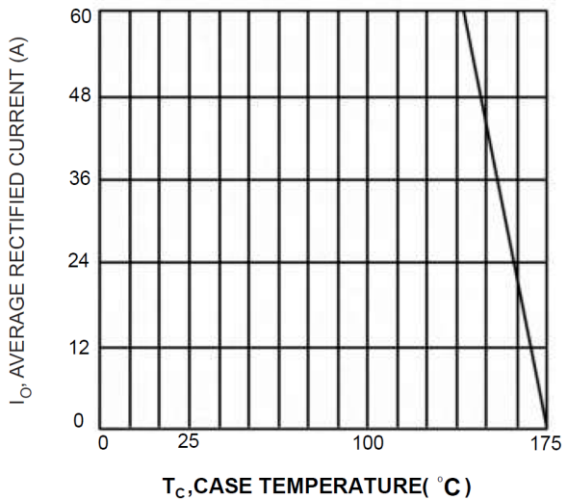
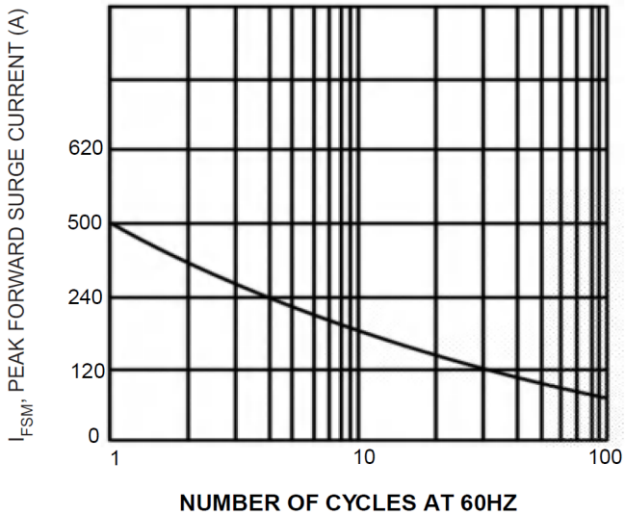
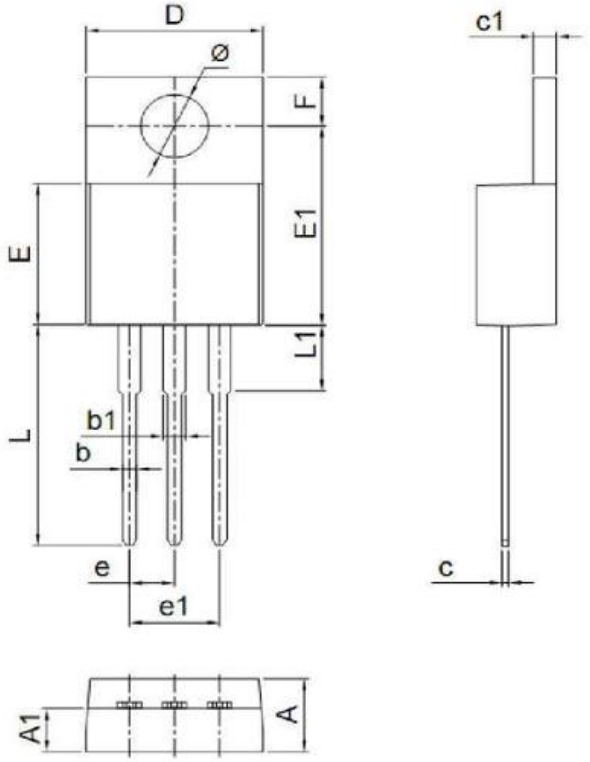


Fig 4. Max Non- Repetitive Surge Current



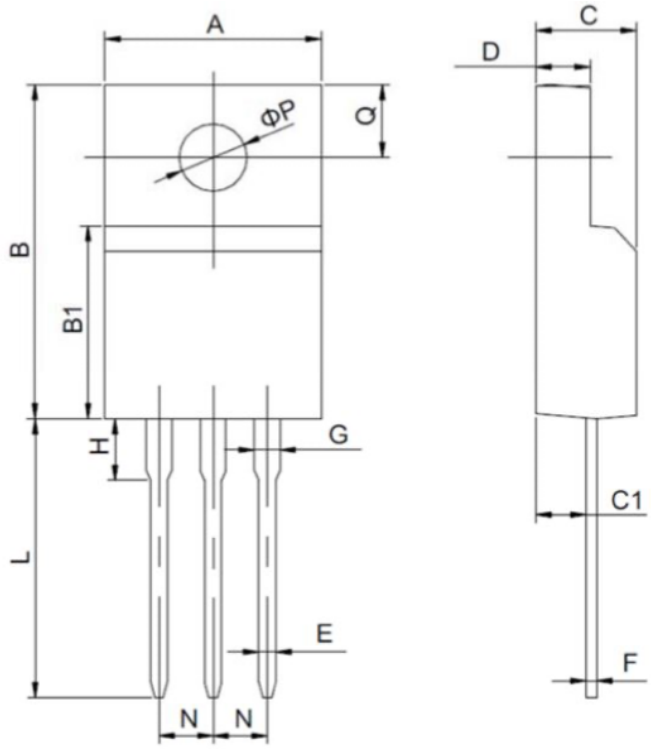
PACKAGE INFORMATION

Dimension in TO-220 Package (Unit: mm)



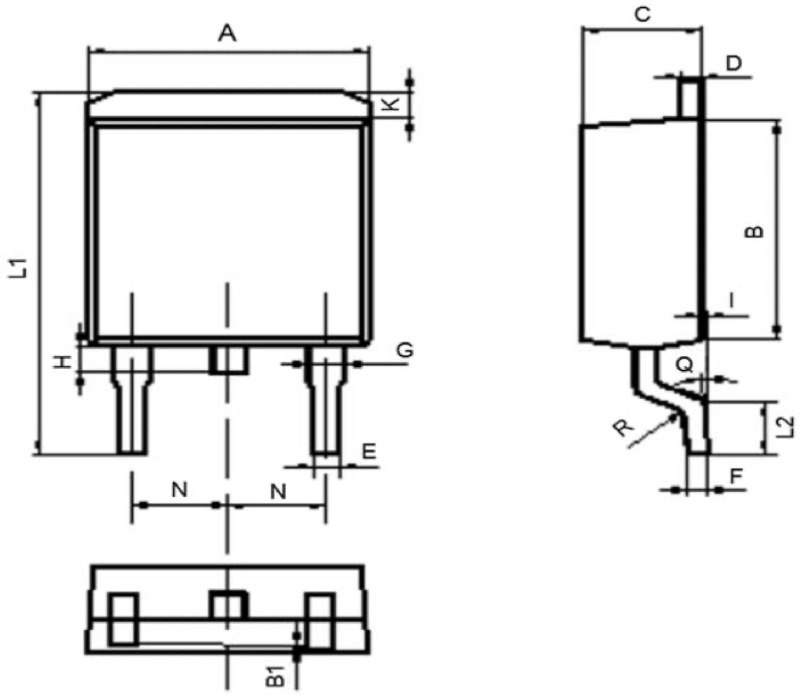
SYMBOL	MIN	MAX
A	9.600	10.600
B	15.000	16.000
B1	8.900	9.500
C	4.300	4.800
C1	2.300	3.100
D	1.200	1.400
E	0.700	0.900
F	0.300	0.600
G	1.170	1.370
H	2.700	3.800
L	12.600	14.800
N	2.340	2.740
Q	2.400	3.000
ΦP	3.500	3.900

Dimension in TO-220F Package (Unit: mm)



SYMBOL	MIN	MAX
A	9.600	10.400
B	15.400	16.200
B1	8.900	9.500
C	4.300	4.900
C1	2.100	3.000
D	2.400	3.000
E	0.600	1.000
F	0.300	0.600
G	1.120	1.420
H	1.600	3.800
L	12.000	14.000
N	2.340	2.740
Q	3.150	3.550
ΦP	2.900	3.300

Dimension in TO-263 Package (Unit: mm)



SYMBOL	MIN	MAX
A	9.800	10.40
B	8.900	9.500
B1	0.000	0.100
C	4.400	4.800
D	1.160	1.370
E	0.700	0.950
F	0.300	0.600
G	1.070	1.470
H	1.300	1.800
K	0.950	1.370
L1	14.50	16.50
L2	1.600	2.300
I	0.000	0.200
Q	0℃	8℃
R	0.400	0.400
N	2.390	2.690

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