

FEATURES

- ✧ High current capability, low forward voltage
- ✧ Excellent high temperature stability
- ✧ Low power loss, and high efficiency
- ✧ High forward surge capability
- ✧ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ✧ RoHS compliant

MACHANICAL DATA

- ✧ Case: TO-220AC/TO-220FAC molded plastic package
- ✧ Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ✧ Molding Compound Flammability Rating: UL94-0
- ✧ High temperature soldering guaranteed: 260°C/10second
- ✧ Polarity: As marked
- ✧ Mounting position: Any

ORDERING INFORMATION

- ✧ Device:
MBR10H100, MBR10H150, MBR10H200
MBR10H100F, MBR10H150F, MBR10H200F
- ✧ Package: TO-220AC/TO-220FAC
- ✧ Marking: As marked
- ✧ Material: RoHS compliant
- ✧ Packing: Plastic tube
- ✧ Quantity per tube: 50pcs

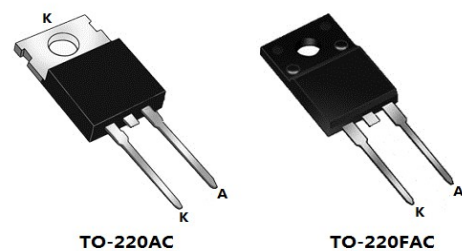
APPLICATIONS

- ✧ Switching mode power supply applications
- ✧ Portable equipment battery applications
- ✧ High frequency rectification
- ✧ DC/DC converter

PIN CONFIGURATION



PACKAGE OUTLINE



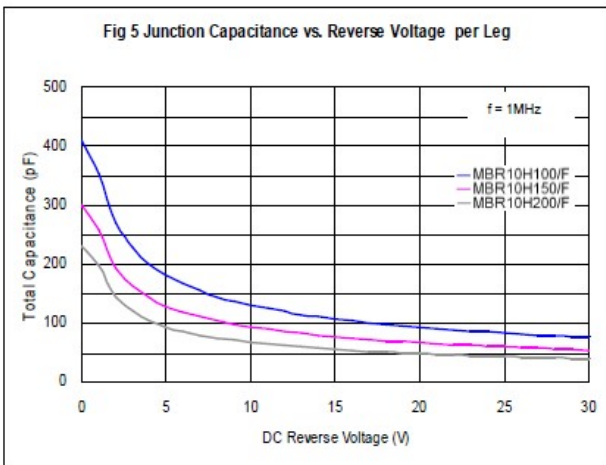
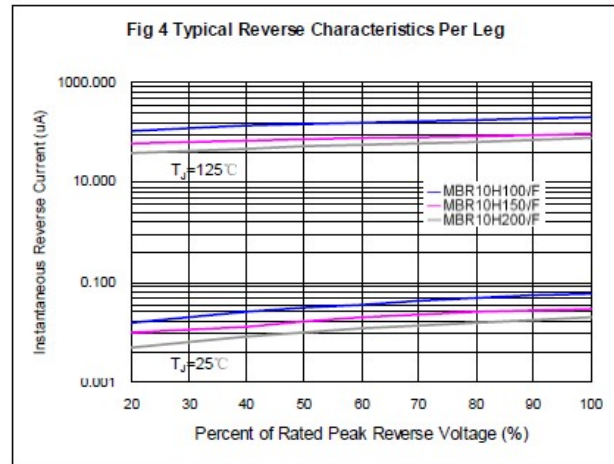
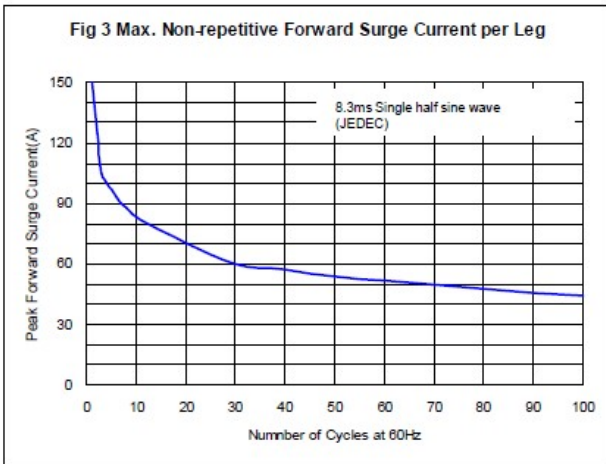
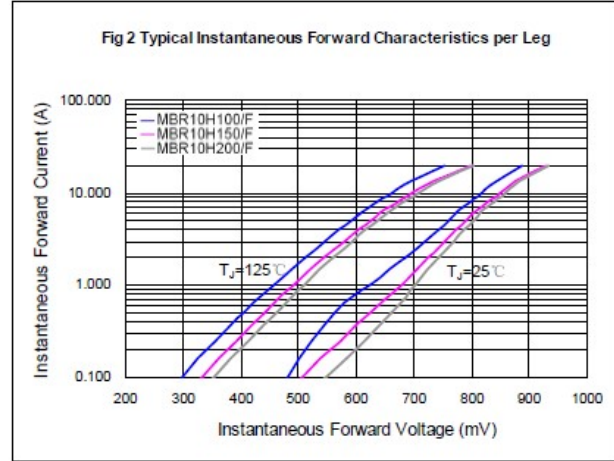
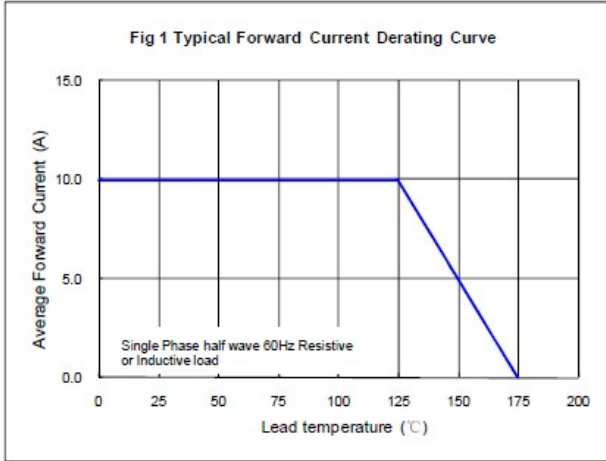
ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)

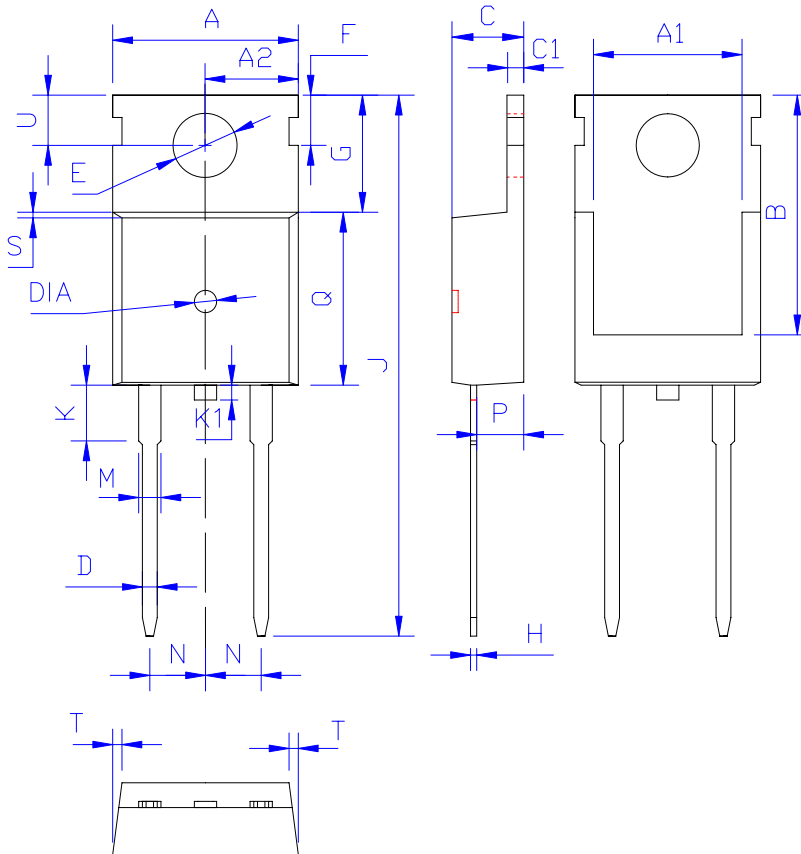
Symbol	Parameter	MBR10H100 MBR10H100F	MBR10H150 MBR10H150F	MBR10H200 MBR10H200F	Units
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	100	150	200	V
V _{RWM}	Working Peak Reverse Voltage	100	150	200	V
V _{DC}	Maximum DC Blocking Voltage	100	150	200	V
I _{F(AV)}	Maximum Average Forward Rectified Current	10			A
I _{FSM}	Peak Forward Surge Current, 8.3ms single half sine-wave per leg	150			A
I _{R(RM)}	Peak Repetitive Reverse Surge Current @2.0μs, f=1kHz, T _J <125°C	3.5	3.0	2.5	A
dV/dt	Voltage Rate of Charge	10,000			V/μs
T _J	Junction Temperature	-65~175			°C
T _{STG}	Storage Temperature	-65~175			°C

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

Symbol	Parameter	Test Condition	MBR10H100 MBR10H100F	MBR10H150 MBR10H150F	MBR10H200 MBR10H200F	Units
V _F	Maximum Forward Voltage per leg	I _F = 10A T _a =25°C I _F = 10A T _a =125°C	0.84 0.74	0.87 0.77	0.88 0.78	V
V _R	Minimum Reverse Breakdown Voltage	I _R =0.5mA	100	150	200	V
I _R	Maximum Reverse Leakage Current	V _R =V _{RWM} T _a =25°C T _a =125°C	5 2000	5 2000	5 2000	μA

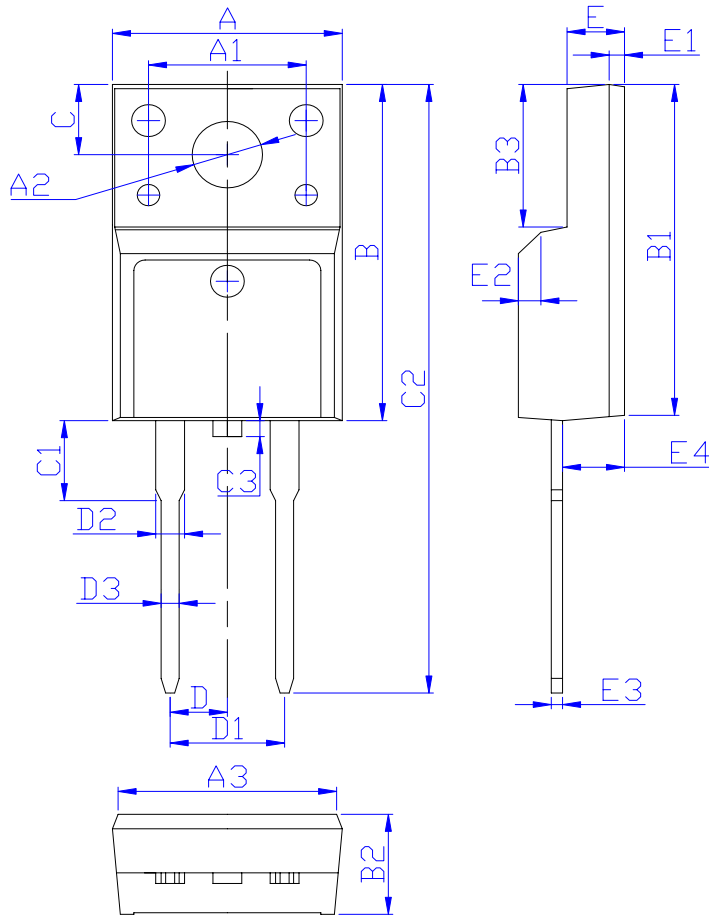
ELECTRICAL CHARACTERISTICS CURVE



TO-220AC PACKAGE OUTLINE DIMENSIONS


DIM	MILLIMETERS
A	10.00±0.30
A1	8.00±0.30
A2	5.00±0.30
B	13.20±0.40
C	4.50±0.20
C1	1.30±0.20
D	0.80±0.20
E	3.60±0.20
F	3.00±0.30
G	6.60±0.40
H	0.50±0.20
J	28.88±0.50
K	3.00±0.30
K1	1.5±0.30
M	1.30±0.30
N	Typical 2.54
P	2.40±0.40
Q	9.20±0.40
S	0.25±0.15
T	0.25±0.15
U	2.80±0.30
DIA	Φ1.50±0.10 Depth 0.05~0.45

(Unit: mm)

TO-220FAC PACKAGE OUTLINE DIMENSIONS


DIM	MILLIMETERS
A	10.16 \pm 0.30
A1	7.00 \pm 0.20
A2	3.12 \pm 0.20
A3	9.70 \pm 0.30
B	15.90 \pm 0.50
B1	15.60 \pm 0.50
B2	4.70 \pm 0.30
B3	6.70 \pm 0.30
C	3.30 \pm 0.25
C1	3.25 \pm 0.30
C2	28.70 \pm 0.50
C3	1.6 (MAX)
D	2.54 \pm 0.20
D1	5.08 \pm 0.20
D2	1.47 (MAX)
D3	0.80 \pm 0.20
E	2.55 \pm 0.25
E1	0.70 \pm 0.25
E2	1.00 \times 45°
E3	0.50 \pm 0.20
E4	2.75 \pm 0.30

(Unit: mm)