



BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES

ULTRA LOW IR SCHOTTKY BARRIER RECTIFIERS

Voltage 150 V **Current** 10 A

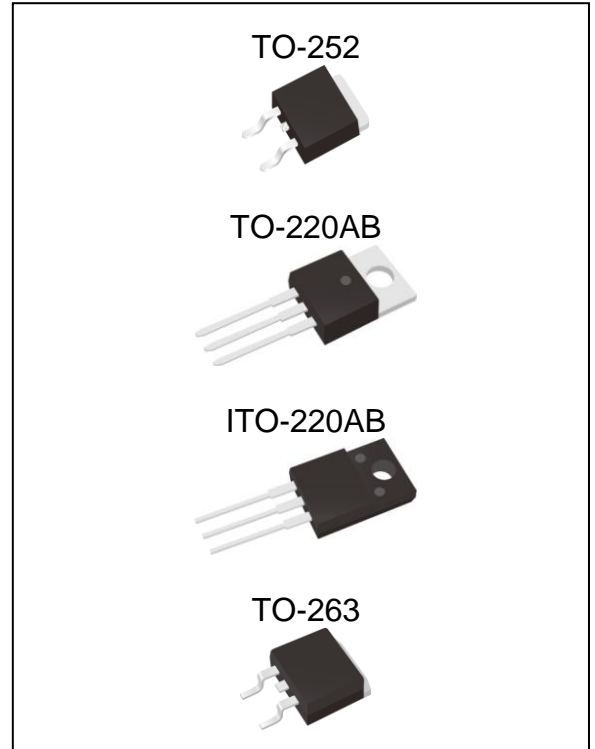
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- High current capability
- High junction temperature capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: TO-252, TO-220AB, ITO-220AB, TO-263 package
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- TO-252 Weight: 0.0104 ounces, 0.297 grams
- TO-220AB Weight: 0.067 ounces, 1.89 grams.
- ITO-220AB Weight: 0.056 ounces, 1.6 grams.
- TO-263 Weight: 0.049 ounces, 1.38 grams.
- Marking: Part number

| | 150V |
|-----------|--------------|
| TO-252 | BD10H150CS |
| TO-220AB | MBR10H150CT |
| ITO-220AB | MBR10H150FCT |
| TO-263 | MBR10H150DC |



Maximum Ratings And Electrical Characteristics (T_A=25^oC unless otherwise noted)

| PARAMETER | | SYMBOL | 150V | UNIT |
|---|------------------------------------|--------------------|-------------|------|
| Maximum repetitive peak reverse voltage | | V _{RRM} | 150 | V |
| Maximum rms voltage | | V _{RMS} | 105 | V |
| Maximum dc blocking voltage | | V _R | 150 | V |
| Maximum average forward rectified current | per device | I _{F(AV)} | 10 | A |
| | per diode | | 5 | |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode | | I _{FSM} | 120 | A |
| Maximum forward voltage at 5A per diode | | V _F | 0.85 | V |
| Maximum dc reverse current at rated dc blocking voltage | T _J =25 ^o C | I _R | 0.5 | μA |
| | T _J =125 ^o C | | 1 | mA |
| Typical thermal resistance | TO-252 (Note 1) | R _{θJC} | 6 | °C/W |
| | TO-220AB(Note 1) | | 3 | |
| | TO-263(Note 1) | | 3 | |
| | ITO-220AB(Note 1) | | 7 | |
| Operating junction temperature range | | T _J | -55 to +175 | °C |
| Storage temperature range | | T _{STG} | -55 to +175 | °C |

Note : 1. Device mounted on a infinite heatsink, then measured the center of the marking side.



BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES

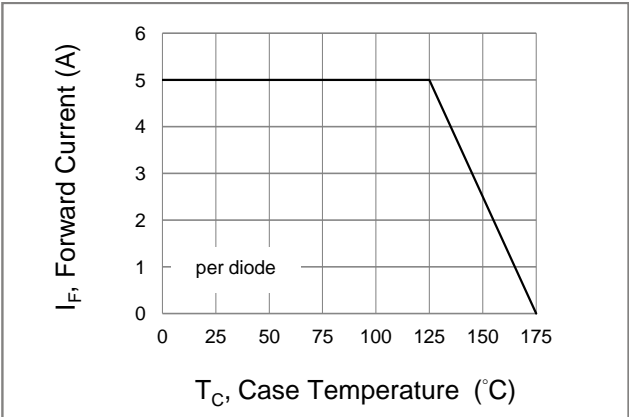


Fig.1 Forward Current Derating Curve

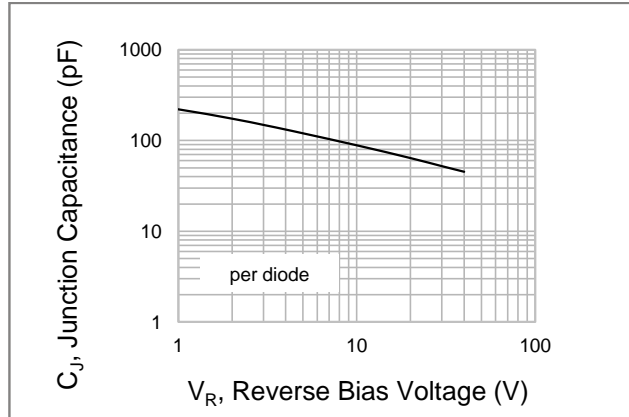


Fig.2 Typical Junction Capacitance

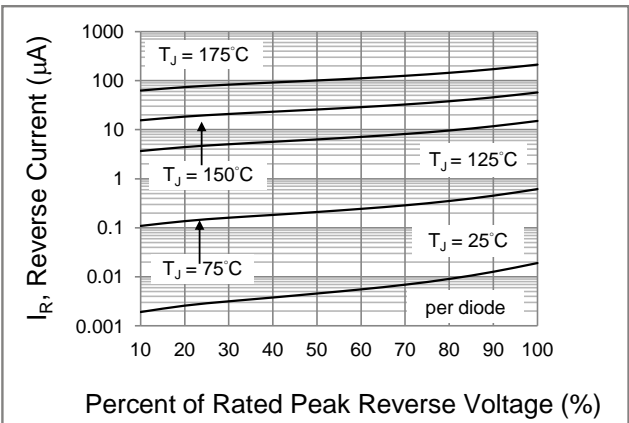


Fig.3 Typical Reverse Characteristics

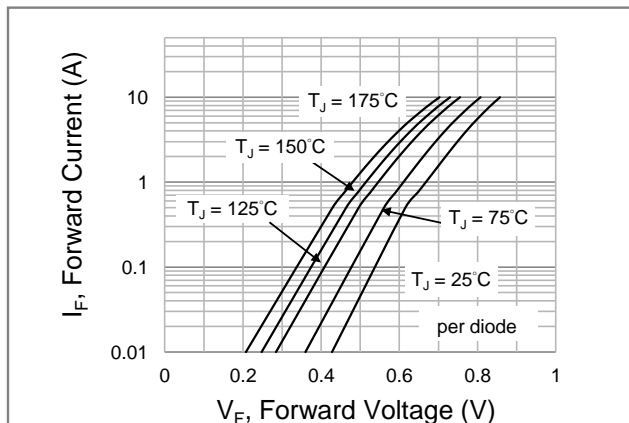


Fig.4 Typical Forward Characteristics

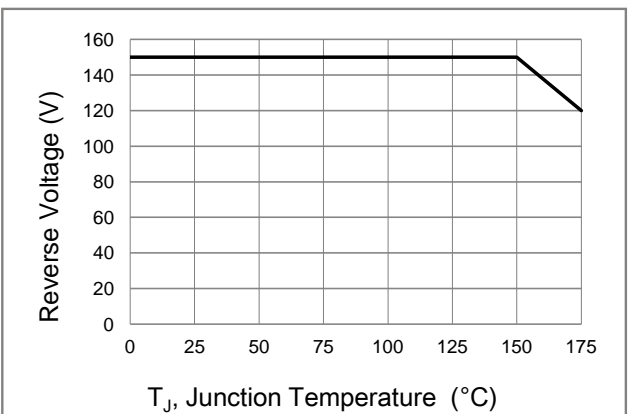
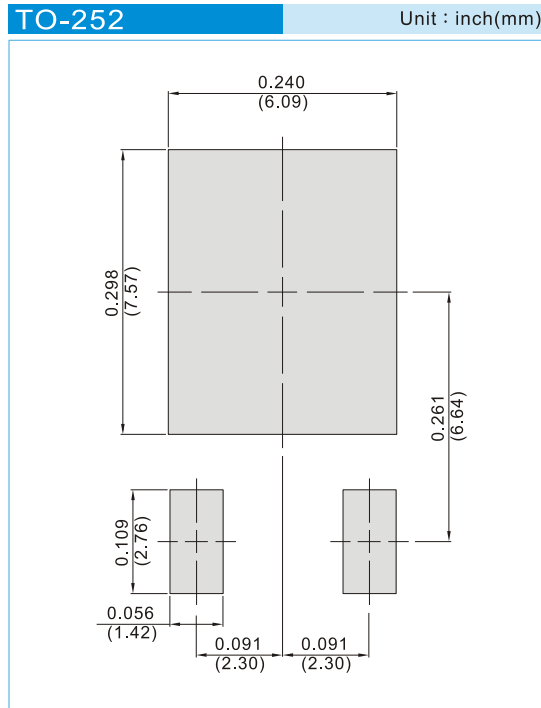


Fig.5 Operating Temperature Derating Curve



BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES

MOUNTING PAD LAYOUT



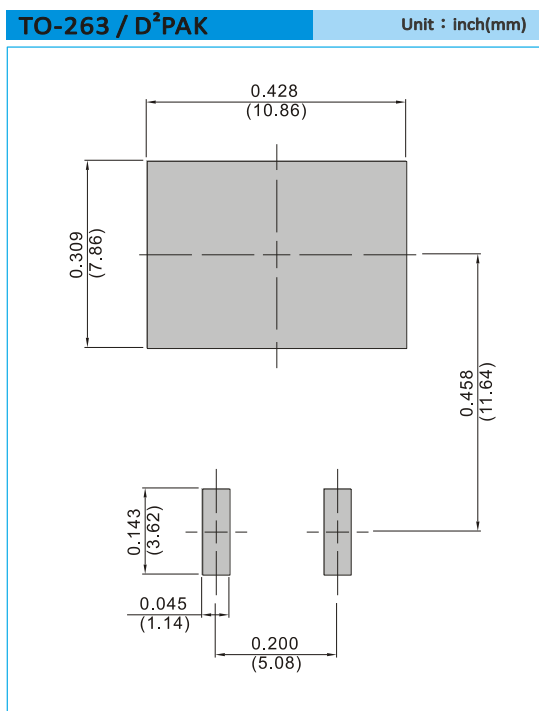
ORDER INFORMATION

- Packing information
T/R - 3K per 13" plastic Reel



BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES

MOUNTING PAD LAYOUT



ORDER INFORMATION

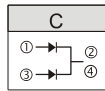
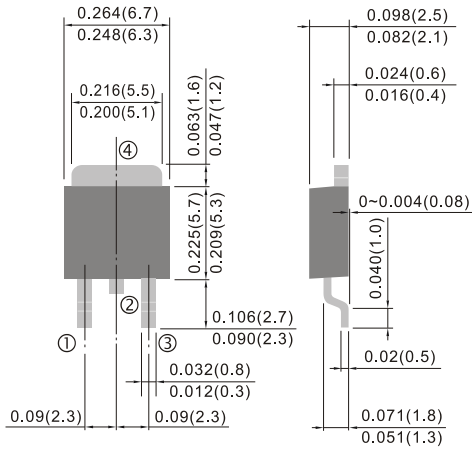
- Packing information
T/R – 0.8K per 13" plastic Reel



BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES

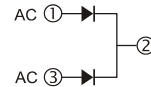
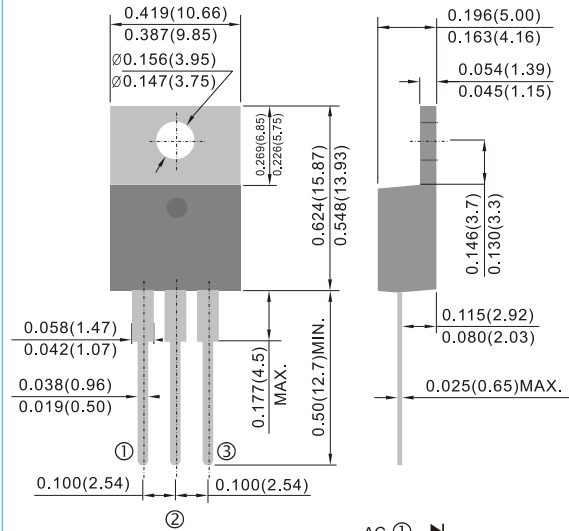
TO-252

Unit : inch(mm)



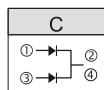
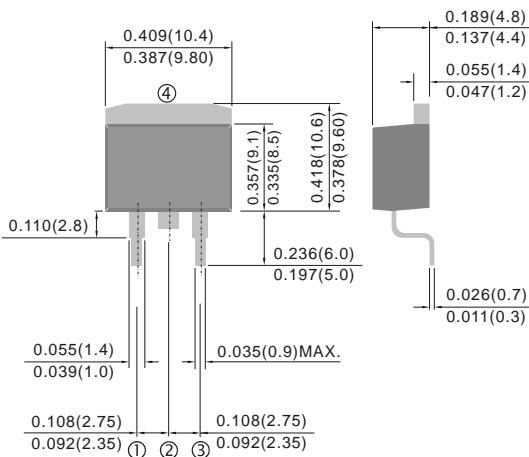
TO-220AB

Unit : inch(mm)



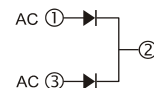
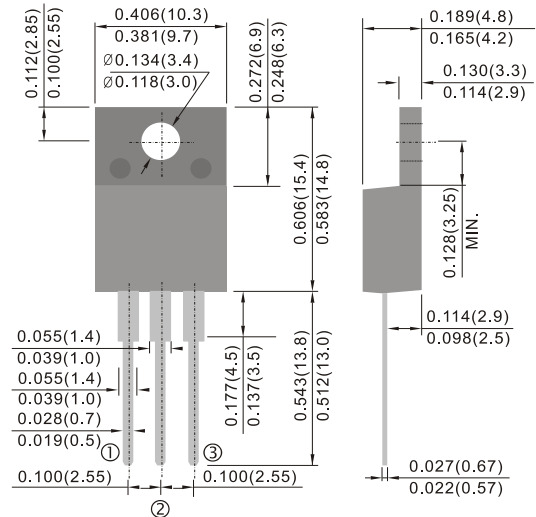
TO-263 / D²PAK

Unit : inch(mm)



ITO-220AB

Unit : inch(mm)





BD10H150CS \ MBR10H150CT \ MBR10H150FCT \ MBR10H150DC SERIES

Part No_packing code_Version

BD10H150CS_L2_00001

BD10H150CS_S2_00001

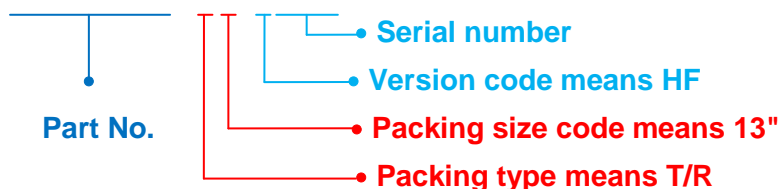
MBR10H150CT_T0_00001

MBR10H150DC_R2_00001

MBR10H150FCT_T0_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |