

Schottky Dual Diode

MBR1545CT

45V / 15A

DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

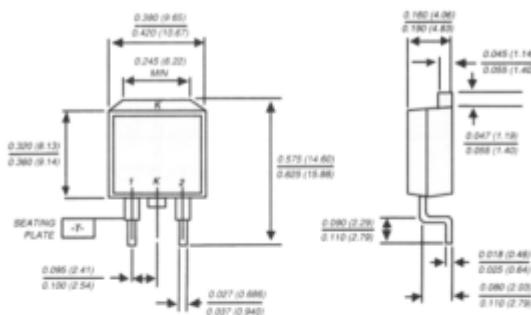
NEW PRODUCT NEW PRODUCT NEW PRODUCT

MBRB1535CT THRU MBRB1560CT

SCHOTTKY RECTIFIER

Reverse Voltage - 35 to 60 Volts Forward Current - 15.0 Amperes

TO-263AB



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High current capability, low forward voltage drop
- ◆ High surge capability
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆ Dual rectifier construction, positive center tap
- ◆ Guardring for overvoltage protection
- ◆ High temperature soldering in accordance with CECC 802 / Reflow guaranteed



MECHANICAL DATA

Case: JEDEC TO-263AB molded plastic body
Terminals: Leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.08 ounces, 2.24 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | MBRB1535CT | MBRB1545CT | MBRB1550CT | MBRB1560CT | UNITS |
|---|------------------|--|------------|------------------------|------------|-------|
| Maximum repetitive peak reverse voltage | VRRM | 35 | 45 | 50 | 60 | Volts |
| Maximum working peak reverse voltage | VRWM | 35 | 45 | 50 | 60 | Volts |
| Maximum DC blocking voltage | VDC | 35 | 45 | 50 | 60 | Volts |
| Maximum average forward rectified current at T _C =105°C | I(AV) | 15.0 | | | | Amps |
| Peak repetitive forward current at T _C =105°C per diode (rated V _R , 20KHz sq.wave) | IFRM | 15.0 | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 150.0 | | | | Amps |
| Peak repetitive reverse surge current (NOTE 1) | IRRM | 1.0 | | 0.5 | | Amps |
| Maximum instantaneous forward voltage per leg at (NOTE 2) | V _F | IF=7.5A, T _C =25°C IF=7.5A, T _C =125°C IF=15A, T _C =25°C IF=15A, T _C =125°C | | 0.75 0.65 - - | | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2) T _C =25°C T _C =125°C | I _R | 0.1 15.0 | | 1.0 50.0 | | mA |
| Voltage rate of change, (rated V _R) | dv/dt | 10,000 | | | | V/μs |
| Maximum thermal resistance per leg (NOTE 3) | R _{θJC} | 3.0 | | | | °C/W |
| Operating junction temperature range | T _J | -65 to +150 | | | | °C |
| Storage temperature range | T _{STG} | -65 to +175 | | | | °C |

NOTES: (1) 2.0μs pulse width, f=1.0 KHz
 (2) 300μs, pulse width, 1% duty cycle
 (3) Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES MBRB1535CT THRU MBRB1560CT

