

Schottky Dual Diode

MBR1550CT

50V / 15A

DATASHEET

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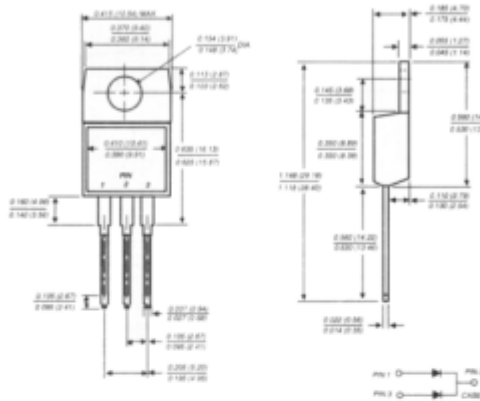
Source: General Semiconductor Databook 1998

MBR1535CT THRU MBR1560CT

SCHOTTKY RECTIFIER

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

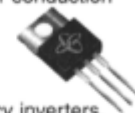
TO-220AB



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 transient protection
- High temperature soldering guaranteed: 250°C/10 seconds, 0.25" (6.35mm) from case



MECHANICAL DATA

Case: JEDEC TO-220AB molded plastic body
Terminals: Leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Mounting Torque: 5 in. - lbs. max.
Weight: 0.08 ounces, 2.24 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | MBR1535CT | MBR1545CT | MBR1550CT | MBR1560CT | UNITS |
|---|--------------------------------------|--|-----------|------------------------|-----------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 35 | 45 | 50 | 60 | Volts |
| Maximum working peak reverse voltage | V _{RWM} | 35 | 45 | 50 | 60 | Volts |
| Maximum DC blocking voltage | V _{DC} | 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 leg (rated V _R , 20KHz sq.wave) | I _{FRM} | 15.0 | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per leg (JEDEC method) | I _{FSM} | 150.0 | | | | Amps |
| Peak repetitive reverse surge current per leg (NOTE 1) | I _{RRM} | 1.0 | | 0.5 | | Amps |
| Maximum instantaneous forward voltage per leg at (NOTE 2) | V _F | I _F =7.5A, T _C =25°C I _F =7.5A, T _C =125°C I _F =15A, T _C =25°C I _F =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 =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 _{θJA} R _{θJC} | 60.0 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 and thermal resistance from junction to ambient

RATINGS AND CHARACTERISTIC CURVES MBR1535CT THRU MBR1560CT

