

Schottky Dual Diode

MBR2545CT

45V / 30A

DATASHEET

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OEM – General Semiconductor

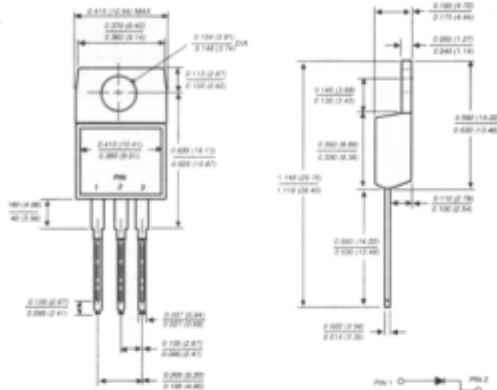
Source: General Semiconductor Databook 1998

MBR2535CT THRU MBR2560CT

SCHOTTKY RECTIFIER

Reverse Voltage - 35 to 60 Volts Forward Current - 30.0 Amperes

TO-220AB



Dimensions in inches and (millimeters)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- Dual rectifier construction, positive center-tap
- 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
- Guardring for overvoltage 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: Lead solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any **Mounting Torque:** 5 in. - lbs. max.

Weight: 0.08 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | MBR2535CT | MBR2545CT | MBR2550CT | MBR2560CT | 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 =130°C | I(AV) | 30.0 | | | | Amps |
| Peak repetitive forward current per leg at T _C =130°C (rated V _R , square wave, 20 KHz) | IFRM | 30.0 | | | | 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 I _F =15.0A, T _C =25°C per leg at: (NOTE 2) | V _F | - | | 0.75 | | Volts |
| I _F =15.0A, T _C =25°C | | - | | 0.65 | | |
| I _F = 30A, T _C =25°C | | 0.82 | | - | | |
| I _F = 30A, T _C =125°C | | 0.73 | | - | | |
| Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2) | I _R | 0.2 | | 1.0 | | mA |
| T _C =125°C | | 40.0 | | 50.0 | | |
| Maximum thermal resistance (NOTE 3) | R _{θJC} | 1.5 | | | | °C/W |
| Voltage rate of change (rated V _R) | dv/dt | 10,000 | | | | V/μs |
| 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) Pulse test: 300μs pulse width, 1% duty cycle
- (3) Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES MBR2535CT THRU MBR2560CT

