

# Schottky Dual Diode

## **MBR1535CT**

35V / 15A

# DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

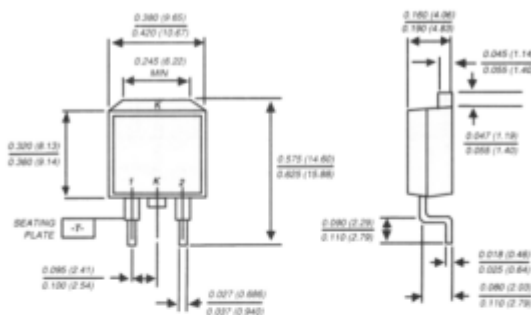
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# MBRB1535CT THRU MBRB1560CT

## 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 <sub>C</sub> =105°C	I(AV)	15.0				Amps
Peak repetitive forward current at T <sub>C</sub> =105°C per diode (rated V <sub>R</sub> , 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) I <sub>F</sub> =7.5A, T <sub>C</sub> =25°C I <sub>F</sub> =7.5A, T <sub>C</sub> =125°C I <sub>F</sub> =15A, T <sub>C</sub> =25°C I <sub>F</sub> =15A, T <sub>C</sub> =125°C	V <sub>F</sub>	-		0.75 0.65		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg T <sub>C</sub> =25°C (NOTE 2) T <sub>C</sub> =125°C	I <sub>R</sub>	0.1 15.0		1.0 50.0		mA
Voltage rate of change, (rated V <sub>R</sub> )	dv/dt	10,000				V/μs
Maximum thermal resistance per leg (NOTE 3)	R <sub>θJC</sub>	3.0				°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +150				°C
Storage temperature range	T <sub>STG</sub>	-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**

