

# Schottky Dual Diode

## **MBRF1560CT**

60V / 15A

# DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

NEW PRODUCT

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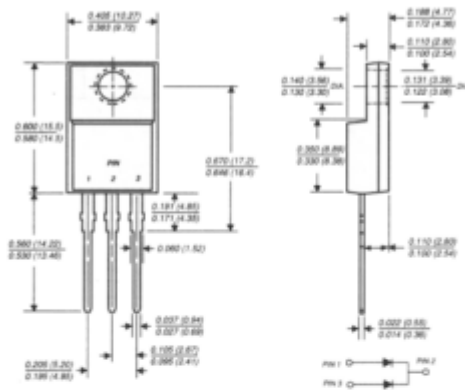
NEW PRODUCT

# MBRF1535CT THRU MBRF1560CT

## SCHOTTKY RECTIFIER

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

### ITO-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:** ITO-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	MBRF1535CT	MBRF1545CT	MBRF1550CT	MBRF1560CT	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	35	45	50	60	Volts
Maximum working peak reverse voltage	V <sub>RWM</sub>	35	45	50	60	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	35	45	50	60	Volts
Maximum average forward rectified current at T <sub>C</sub> =105°C	I <sub>(AV)</sub>	15.0				Amps
Peak repetitive forward current at T <sub>C</sub> =105°C per diode (rated V <sub>R</sub> , 20KHz sq.wave)	I <sub>FRM</sub>	15.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150.0				Amps
Peak repetitive reverse surge current (NOTE 1)	I <sub>RRM</sub>	1.0		0.5		Amps
Maximum instantaneous forward voltage per leg at (NOTE 2)	V <sub>F</sub>	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		0.75 0.65 - -		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2) 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>	5.0				°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

**RATINGS AND CHARACTERISTIC CURVES MBRF1535CT THRU MBRF1560CT**

