

# Schottky Diode

## **MBR750**

50V / 7,5A

# DATASHEET

from

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OEM – General Semiconductor

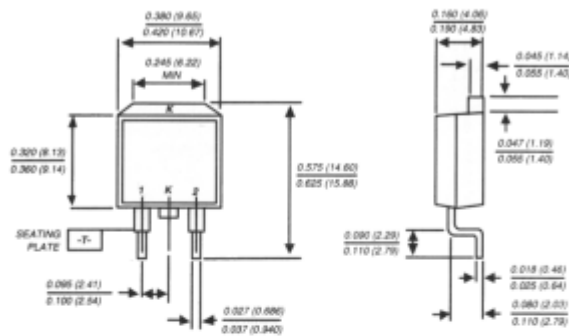
Source: General Semiconductor Databook 1998

# MBRB735 THRU MBRB760

## SCHOTTKY RECTIFIER

Reverse Voltage - 35 to 60 Volts Forward Current - 7.5 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
- ◆ Guardring for overvoltage protection
- ◆ High temperature soldering in accordance with CECC 802 / Reflow guaranteed



### MECHANICAL DATA

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

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	MBRB735	MBRB745	MBRB750	MBRB760	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 (SEE FIG 1)	I <sub>(AV)</sub>	7.5				Amps
Peak repetitive forward current (square wave, 20 KHz) at T <sub>C</sub> =105°C	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 at (NOTE 2)	V <sub>F</sub>	-		0.75		Volts
		0.57		0.65		
		0.84		-		
		0.72		-		
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 1)	I <sub>R</sub>	0.1		0.5		mA
		15.0		50.0		
Voltage rate of change (rated V <sub>R</sub> )	dv/dt	10,000		1,000		V/μs
Maximum thermal resistance, (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) Pulse test: 300μs pulse width, 1% duty cycle
- (3) Thermal resistance from junction to case

**RATINGS AND CHARACTERISTIC CURVES MBRB735 THRU MBRB760**

