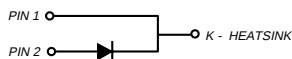
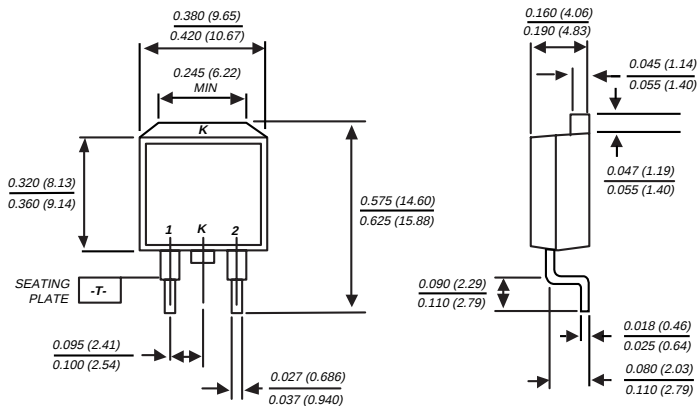


MBRB1635 THRU MBRB1660

SCHOTTKY RECTIFIER

Reverse Voltage - 35 to 60 Volts Forward Current - 16.0 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
- ◆ Guardring for overvoltage protection
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆ 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 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	MBRB1635	MBRB1645	MBRB1650	MBRB1660	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 Tc=125°C	I(AV)	16.0				Amps
Peak repetitive forward current at Tc=125°C (rated VR, sq. wave,20 KHz)	IFRM	32.0				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 at: (NOTE 2) IF=16A, Tc=25°C IF=16A, Tc=125°C	VF	0.63 0.57		0.75 0.65		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 2)	IR	0.2 40.0		1.0 50.0		mA
Voltage rate of change (rated VR)	dv/dt	10,000				V/μs
Maximum typical thermal resistance (NOTE 3)	RθJC	1.5				°C/W
Operating junction temperature range	TJ	-65 to +150				°C
Storage temperature range	TSTG	-65 to +175				°C

NOTES: (1) 2.0 μs pulse width, $f=1.0$ KHz

(2) Pulse test: 300 μs pulse width, 1% duty cycle

(3) Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES MBRB1635 THRU MBRB1660

FIG. 1 - FORWARD CURRENT DERATING CURVE

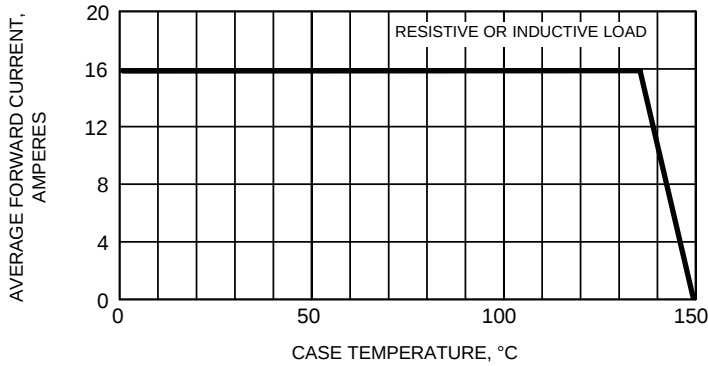


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

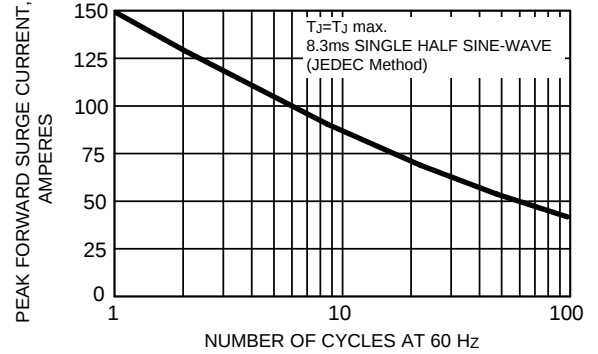


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

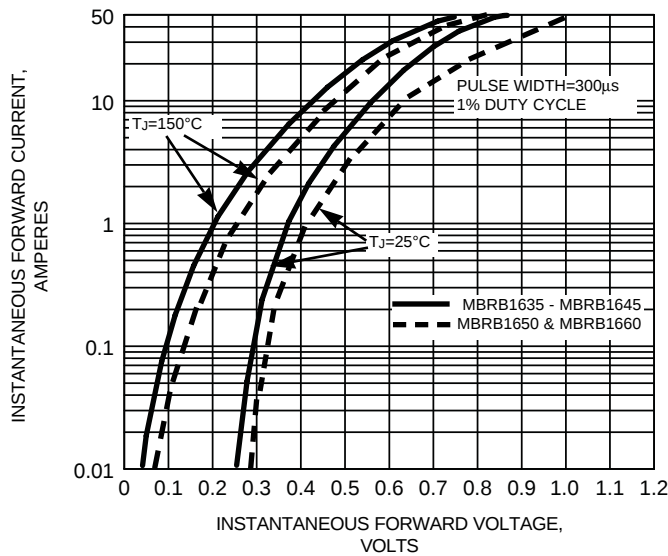


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

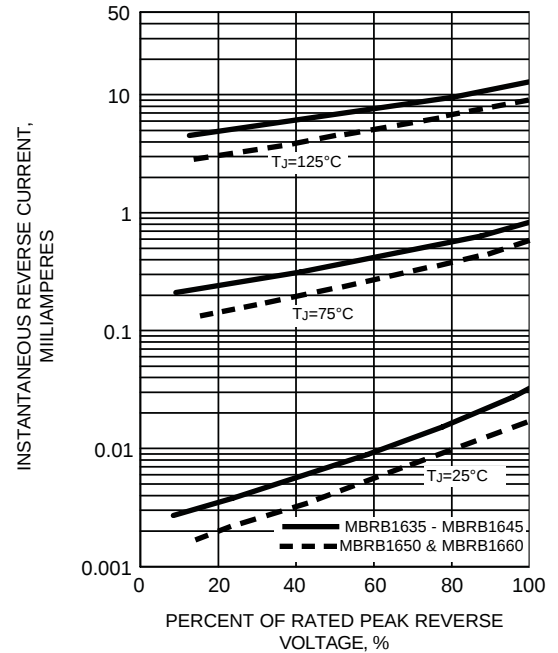


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

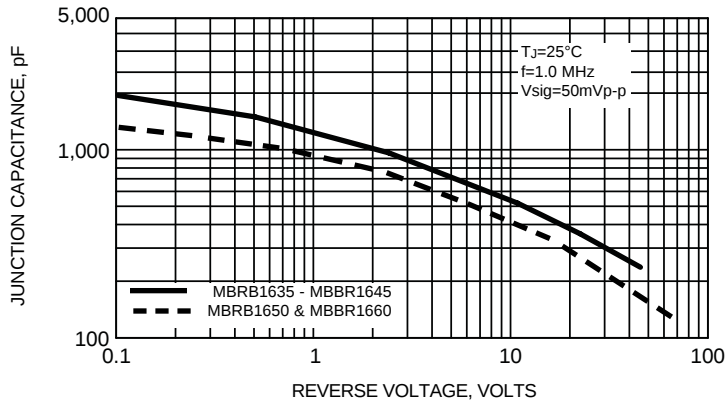


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

