

Schottky Dual Diode

MBRB2045CT

45V / 20A

DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

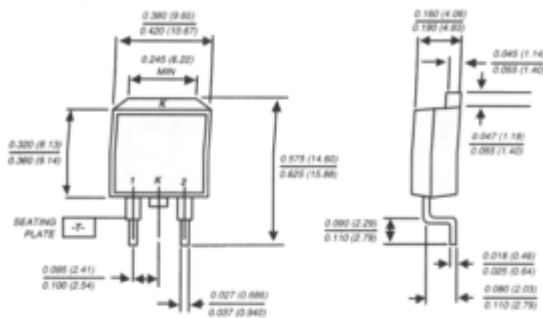
NEW PRODUCT NEW PRODUCT NEW PRODUCT

MBRB2035CT THRU MBRB2060CT

SCHOTTKY RECTIFIER

Reverse Voltage - 35 to 60 Volts Forward Current - 20.0 Amperes

TO-263AB



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 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
- ◆ 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
Terminals: Leads 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	MBRB2035CT	MBRB2045CT	MBRB2050CT	MBRB2060CT	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	35	45	50	60	Volts
Maximum working peak reverse voltage	V _{RWM}	35	45	50	60	Volts
Maximum DC blocking voltage	V _{DC}	35	45	50	60	Volts
Maximum average forward rectified current at T _C =135°C	I _(AV)	20.0				Amps
Peak repetitive forward current per leg at T _C =135°C (rated V _R , sq. wave 2.0 KHz)	I _{FRM}	20.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150.0				Amps
Peak repetitive reverse surge current (NOTE 1)	I _{RRM}	1.0		0.5		Amps
Maximum instantaneous forward voltage per leg at (NOTE 2) I _F =10A, T _C =25°C I _F =10A, T _C =125°C I _F =20A, T _C =25°C I _F =20A, T _C =125°C	V _F	0.57 0.84		0.80 0.70 0.95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg T _C =25°C T _C =125°C	I _R	0.1 15.0		0.15 150.0		mA
Voltage rate of change, (rated V _R)	dv/dt	10,000				V/μs
Typical thermal resistance per leg (NOTE 3)	R _{θJC}	2.0				°C/W
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=1.0KHz
 (2) Pulse test: 300μs pulse width, 1% duty cycle
 (3) Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES MBRB2035CT THRU MBRB2060CT

