

Schottky Dual Diode

MBR2045CT

45V / 20A

DATASHEET

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OEM – General Semiconductor

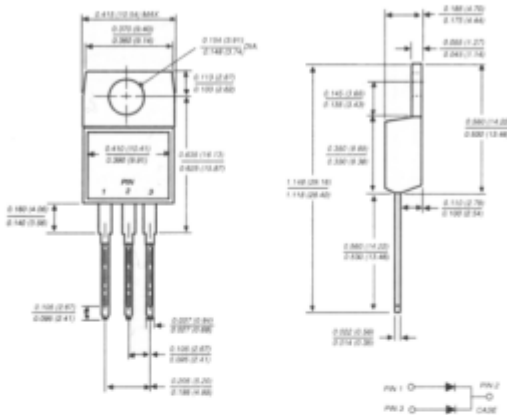
Source: General Semiconductor Databook 1998

MBR2035CT THRU MBR2060CT

SCHOTTKY RECTIFIER

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

TO-220AB



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 guaranteed: 250°C/10 seconds, 0.25" (6.35mm) from case



MECHANICAL DATA

Case: JEDEC TO-220AB molded plastic
Terminals: Leads solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any

Mounting Torque: 5 in. - lbs.max.

Weight: 0.08 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	MBR2035CT	MBR2045CT	MBR2050CT	MBR2060CT	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=135°C	IF(AV)	20.0				Amps
Peak repetitive forward current per leg at TC=135°C (rated VR, sq. wave 2.0 KHz)	IFRM	20.0				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)	VF	IF=10A, TC=25°C IF=10A, TC=125°C IF=20A, TC=25°C IF=20A, TC=125°C		0.80 0.70 0.95 0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg	IR	TC=25°C TC=125°C		0.15 150.0		mA
Voltage rate of change, (rated VR)	dv/dt	10,000				V/μs
Typical thermal resistance per leg (NOTE 3)	ReJC	2.0				°C/W
Operating junction temperature range	TJ	-65 to +150				°C
Storage temperature range	TSTG	-65 to +175				°C

NOTES:

(1) 2.0μs pulse width, f=1.0KHz

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

RATINGS AND CHARACTERISTIC CURVES MBR2035CT THRU MBR2060CT

