

20A Dual Schottky Rectifiers

PRODUCT SUMMARY

Voltage ratings available from 35 to 60 Volts

FEATURES

- Plastic packages have Underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Metal-silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- High temperature soldering guaranteed:
250°C for 10 seconds, 0.25" (6.35mm) from case
- Case: JEDEC TO-220AB (MBR...) or ITO-220AB (MBRB...) molded plastic body - for dimensions, see page 3
- Terminals: Matte-Sn plated leads, solderable per MIL-STD-750, method 2026
- Polarity: As marked
- Mounting Position: Any
- Mounting Torque: 10 in-lbs maximum
- Weight: 0.08 ounce, 2.24 grams

 Pb-free; RoHS-compliant

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

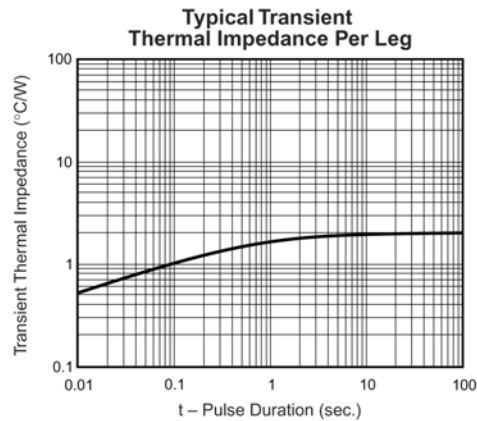
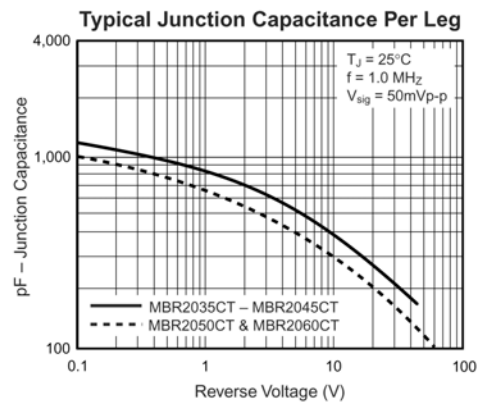
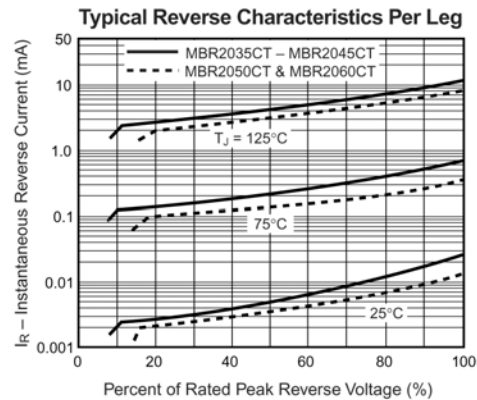
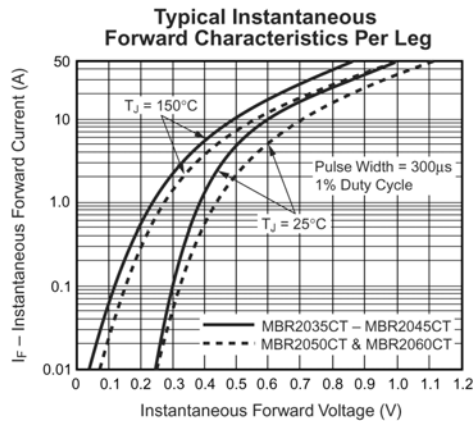
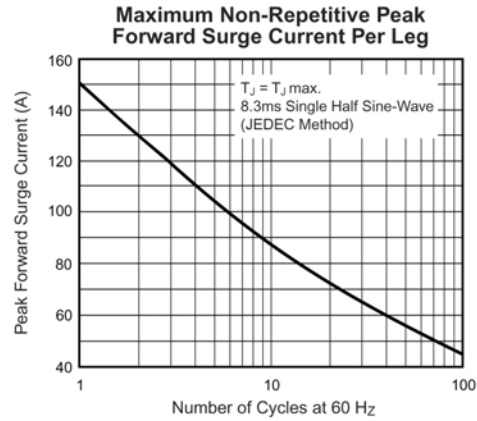
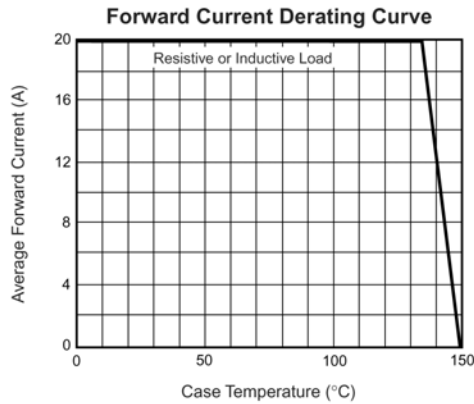
- Rating at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, 60 Hz, resistive or inductive load.
- For capacitive load, derate current by 20%

Parameter	Symbol	MBR2035CT MBRB2035CT	MBR2045CT MBRB2045CT	MBR2050CT MBRB2050CT	MBR2060CT MBRB2060CT	Units
Maximum repetitive peak reverse voltage	V _{RRM}	35	45	50	60	Volts
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 Total device Per leg	I _{F(AV)}	20 10				Amps
Peak repetitive forward current per leg at (rated V _R , sq. wave, 20kHz) at T _c =135°C	I _{FRM}	20				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) per leg	I _{FSM}	150				Amps
Peak repetitive reverse surge current per leg at t _p = 2.0μs, 1KHz	I _{RRM}	1.0		0.5		Amps
Voltage rate of change (rated V _R)	dv/dt	10,000				V/μs
Maximum instantaneous forward voltage per leg (Note 1) at I _F =10A, T _C =25°C at I _F =10A, T _C =125°C at I _F =20A, T _C =25°C at I _F =20A, T _C =125°C	V _F	- 0.57 0.84 0.72				0.80 0.70 0.95 0.85 Volt
Maximum reverse current at rated DC blocking voltage per leg (Note 1) T _C =25°C T _C =125°C	I _R	0.1 15		0.15 150		mA
Thermal resistance from junction to case per leg	R _{θJC}	2.0				°C/W
Operating junction temperature range	T _J	-55 to +150				°C
Storage temperature range	T _{STG}	-55 to +150				°C

Notes: 1. Pulse test: 300 μs pulse width, 1% duty cycle

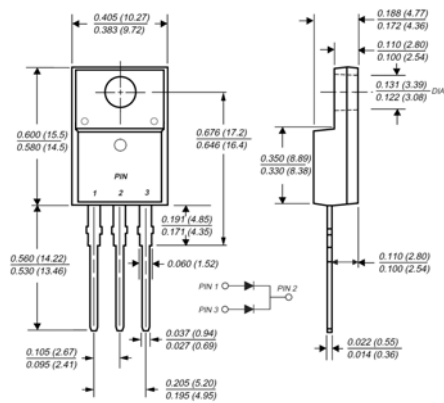
RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

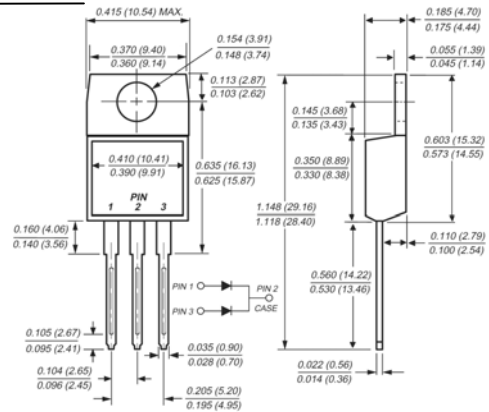


PHYSICAL DIMENSIONS

ITO-220AB



TO-220AB



Dimensions in inches and (millimeters)

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