

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

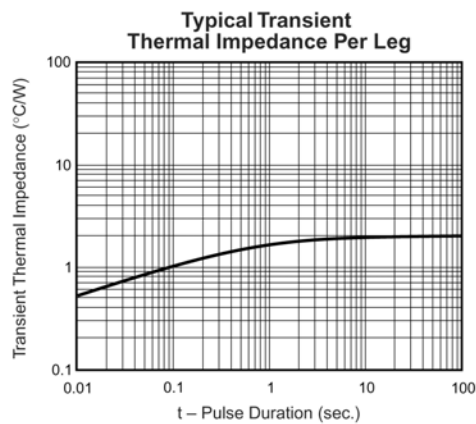
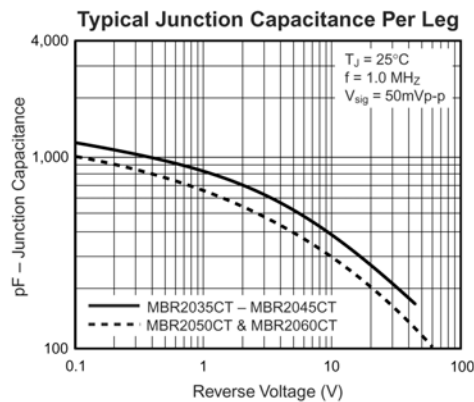
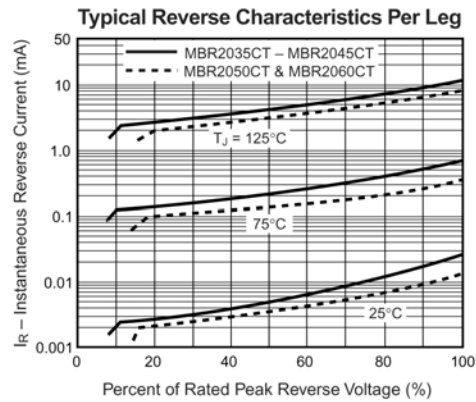
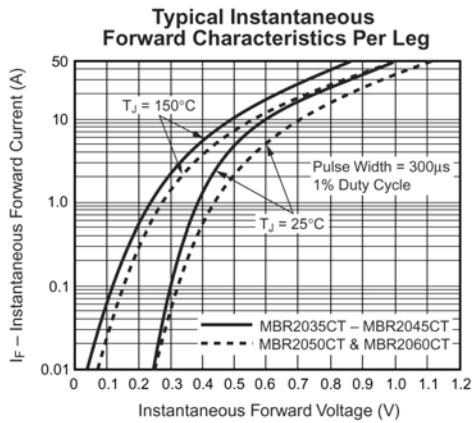
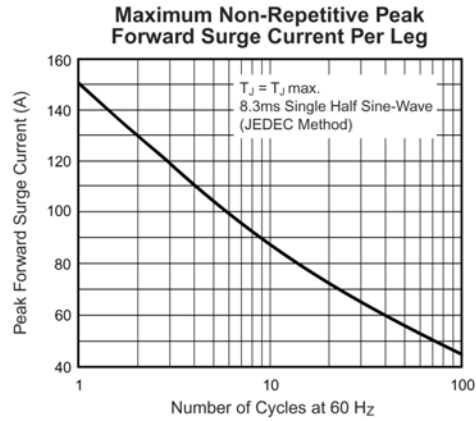
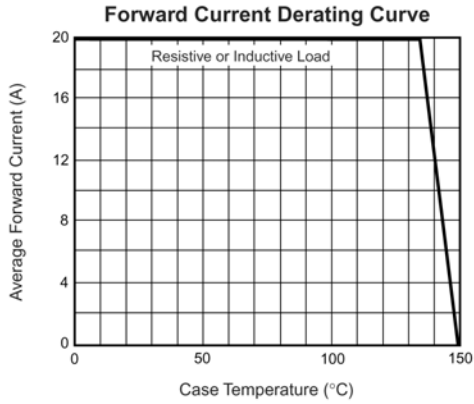
- Rating at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, 60 Hz, resistive or inductive load.
- For capacitive load, derate current by 20%

Parameter	Symbol	MBR2035CT	MBR2045CT	MBR2050CT	MBR2060CT	Units
		MBRB2035CT	MBRB2045CT	MBRB2050CT	MBRB2060CT	
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 $T_c=135^\circ\text{C}$	Total device Per leg I_{FAV}	20				Amps
		10				
Peak repetitive forward current per leg at (rated V_R , sq. wave, 20kHz) at $T_c=135^\circ\text{C}$	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 $t_p = 2.0\mu\text{s}$, 1KHz	I_{RRM}	1.0		0.5		Amps
Voltage rate of change (rated V_R)	dv/dt	10,000				V/us
Maximum instantaneous forward voltage per leg (Note 1)	V_F					Volt
at $I_F=10\text{A}$, $T_c=25^\circ\text{C}$					0.80	
at $I_F=10\text{A}$, $T_c=125^\circ\text{C}$		0.57			0.70	
at $I_F=20\text{A}$, $T_c=25^\circ\text{C}$		0.84			0.95	
at $I_F=20\text{A}$, $T_c=125^\circ\text{C}$	0.72			0.85		
Maximum reverse current at rated DC blocking voltage per leg (Note 1)	I_R	$T_c=25^\circ\text{C}$	0.1		0.15	mA
$T_c=125^\circ\text{C}$		15		150		
Thermal resistance from junction to case per leg	$R_{\theta JC}$	2.0				$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150				$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150				$^\circ\text{C}$

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

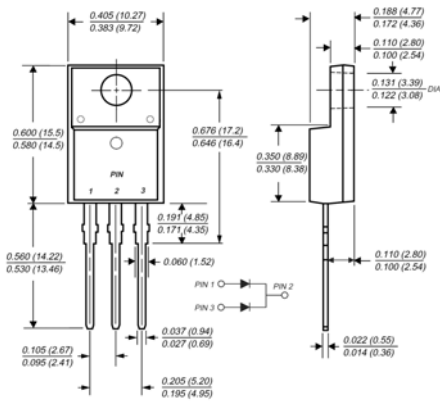
RATINGS AND CHARACTERISTIC CURVES

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

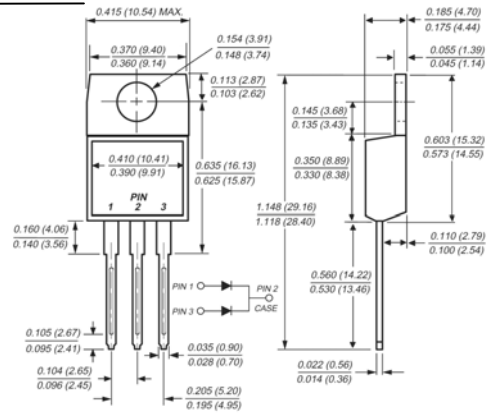


PHYSICAL DIMENSIONS

ITO-220AB



TO-220AB



Dimensions in inches and (millimeters)

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