

# 25A 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
- Guard-ring 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

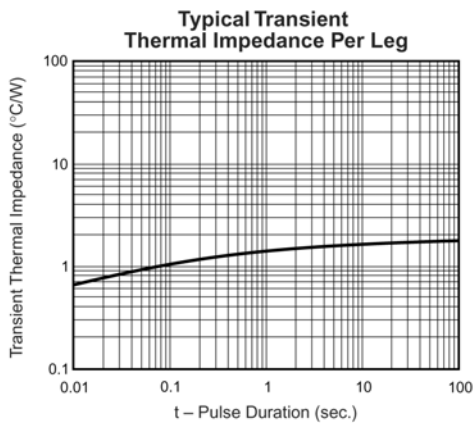
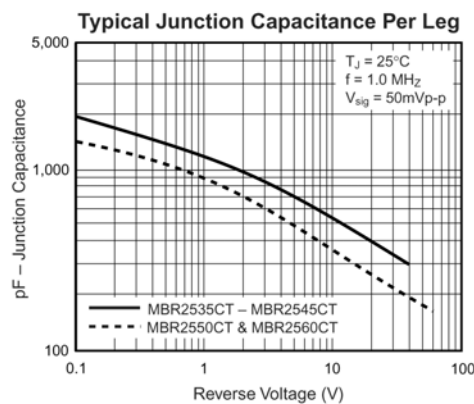
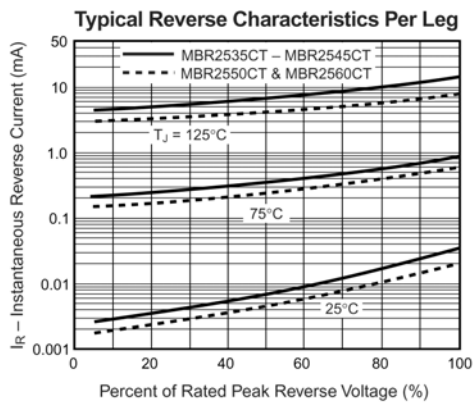
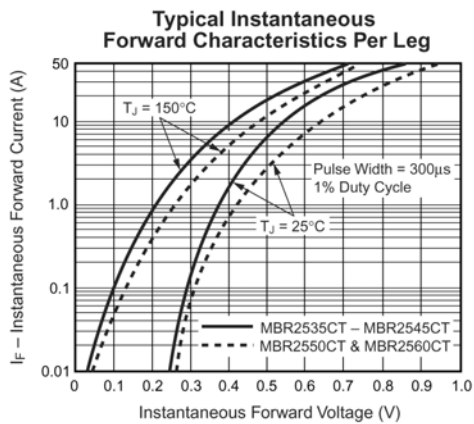
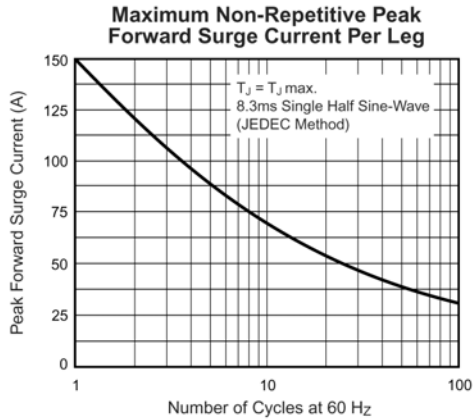
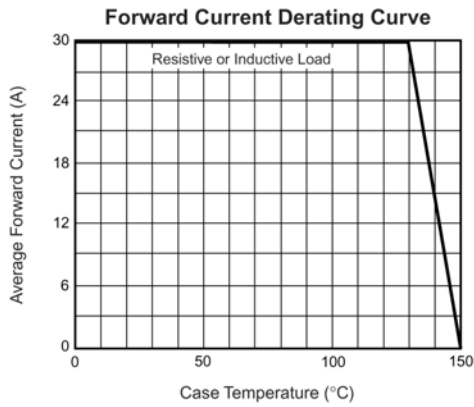
- Rating at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, 60 Hz, resistive or inductive load.
- For capacitive load, derate current by 20%

Parameter	Symbol	MBR2535CT	MBR2545CT	MBR2550CT	MBR2560CT	Units
		MBRB2535CT	MBRB2545CT	MBRB2550CT	MBRB2560CT	
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 $T_C=130^\circ\text{C}$	Total device Per leg $I_{FAV}$	25 12.5				Amps
Peak repetitive forward current per leg at (rated $V_R$ , sq. wave 20kHz) at $T_C=130^\circ\text{C}$	$I_{FRM}$	30				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) at $I_F=12.5\text{A}$ , $T_C=25^\circ\text{C}$ at $I_F=12.5\text{A}$ , $T_C=125^\circ\text{C}$ at $I_F=25\text{A}$ , $T_C=25^\circ\text{C}$ at $I_F=25\text{A}$ , $T_C=125^\circ\text{C}$	$V_F$	-	-	0.75	0.65	Volt
Maximum reverse current at rated DC blocking voltage per leg (Note 1) $T_C=25^\circ\text{C}$ $T_C=125^\circ\text{C}$	$I_R$	0.2	40	1.0	50	mA
Thermal resistance from junction to case per leg	$R_{\theta JC}$	1.5				$^\circ\text{C/W}$
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

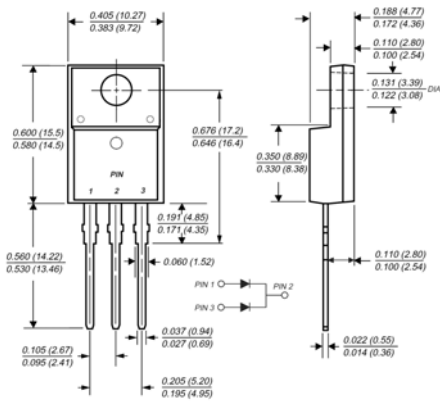
## RATINGS AND CHARACTERISTIC CURVES

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

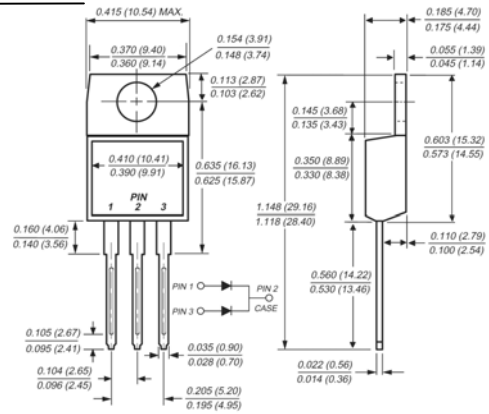


## PHYSICAL DIMENSIONS

**ITO-220AB**



**TO-220AB**



Dimensions in inches and (millimeters)

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