

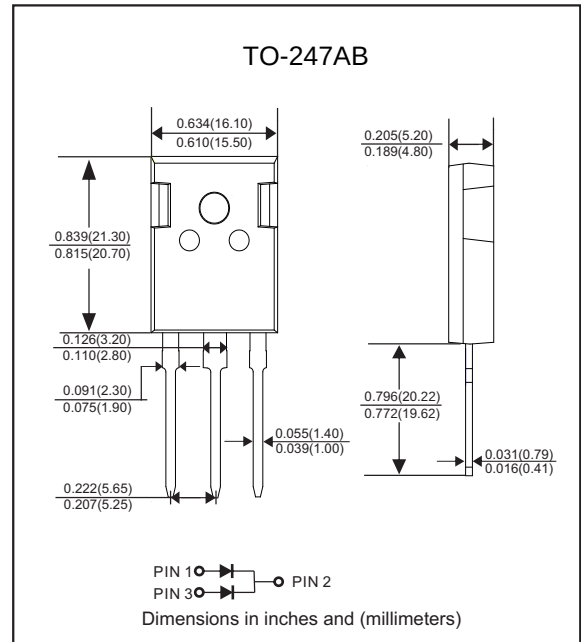
Features

- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Suffix "H" indicates Halogen-free parts

Mechanical data

- Case : TO-247AB
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity : Polarity symbol marking on body

Package outline



Maximum ratings and Electrical Characteristics (AT $T_J=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Average Forward rectified current	Rated VR- 20Khz square wave - 50% duty cycle	I_O			60	A
Forward surge current	60Hz half sine-wave, 1 cycle, $T_J=25^{\circ}\text{C}$	I_{FSM}			320	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^{\circ}\text{C}$	I_R			0.05	mA
	$V_R = V_{RRM}$ $T_J = 125^{\circ}\text{C}$				5	
Junction capacitance	1 MHZ and applied reverse voltage of 4.0V DC	C_J		945		pF
Thermal resistance	Junction to case	$R_{\theta JC}$		1.0		$^{\circ}\text{C/W}$
Storage temperature		T_{STG}	-55		+175	$^{\circ}\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^{\circ}\text{C}$)
MBR60100PT	100	70	100	0.85	-55 to +175

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage
 $I_F = 30\text{ A}$

Rating and characteristic curves

FIG1: I_o - T_c Curve

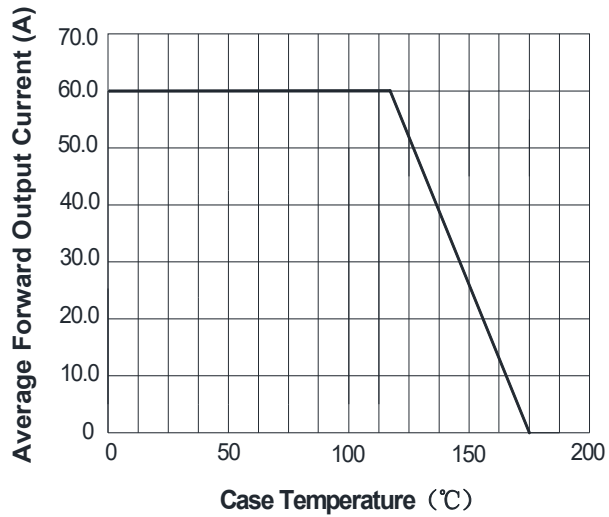


FIG2: Surge Forward Current Capability

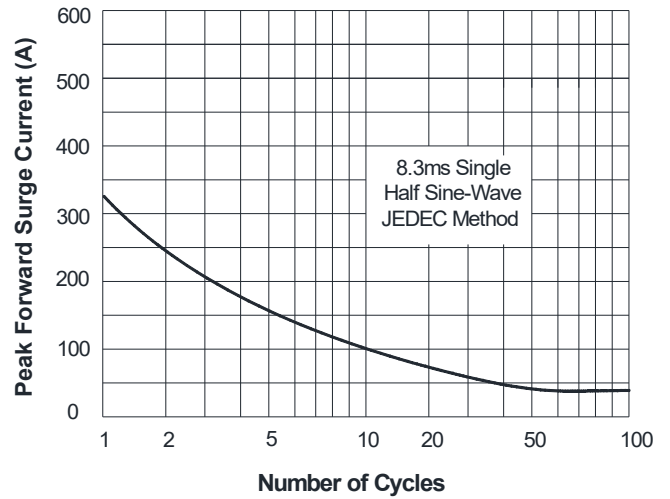


FIG3: Forward Voltage

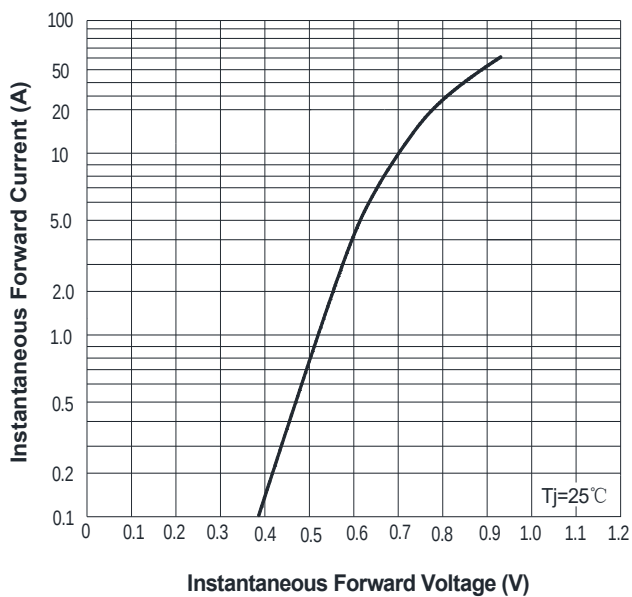
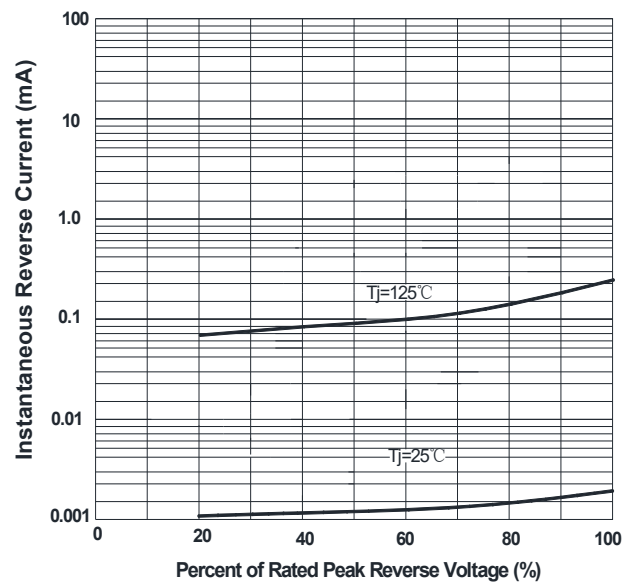
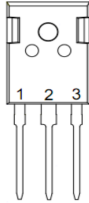
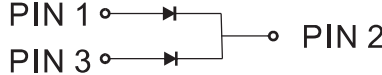


FIG4: Instantaneous Reverse Characteristics



Pinning information

Pin	Simplified outline	Symbol
Pin1 anode Pin2 cathode Pin3 anode		

Marking

Type number	Marking code
MBR60100PT	MBR60100PT