

VOLTAGE RANGE: 40 - 200V

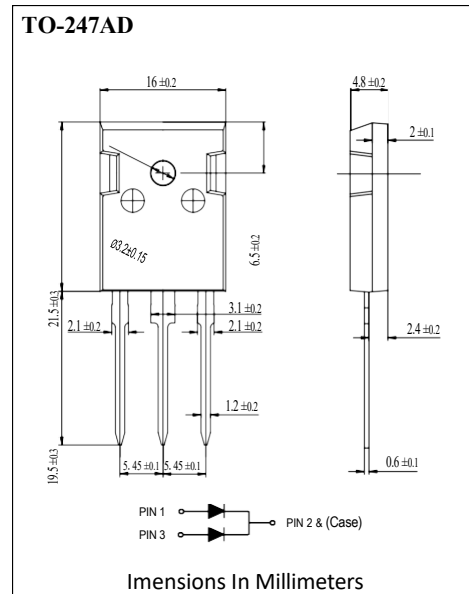
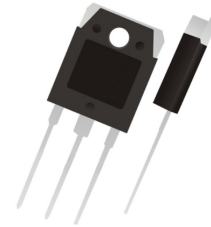
CURRENT: 40A

Features

- High efficiency operation and Low power loss
- Low stored charge majority carrier conduction
- High forward surge capability
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

- Circuit figure: Common Cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: 5.85



Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

RATINGS	SYMBOL	MBR4040PT	MBR4045PT	MBR4060PT	MBR40100PT	MBR40150PT	MBR40200PT	UNIT
Maximum repetitive reverse voltage	VRRM	40	45	60	100	150	200	V
Maximum RMS voltage	VRMS	28	32	42	70	105	140	V
Maximum DC blocking voltage	VDC	40	45	60	100	150	200	V
Maximum average forward current per device per diode	I _{AV}	40				20		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	380						A
Typical thermal resistance (Note 1)	R _{θ-JC}	1.5						°C/W
Operating junction temperature range	T _J	-55 to +150				-55 to +175		°C
Storage temperature range	T _{STG}	-55 to +175						°C
Maximum forward voltage per leg at I _F =20A	V _F	0.65		0.75	0.85	0.95		V
Maximum average reverse current at rated DC blocking voltage T _J =25°C T _J =100°C	I _R	0.10 30		0.02 10		0.01 5		mA

Notes: 1. Thermal resistance from junction to case.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

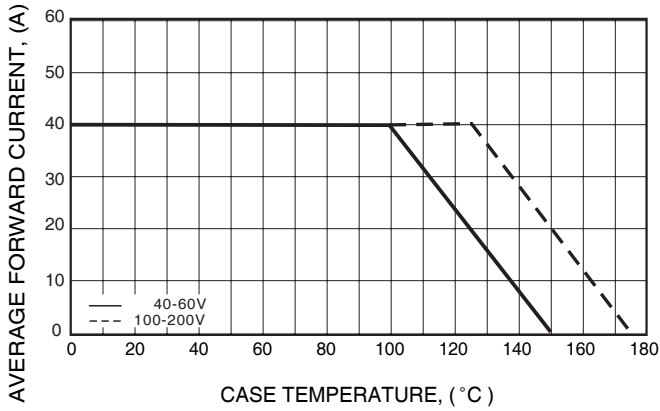


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

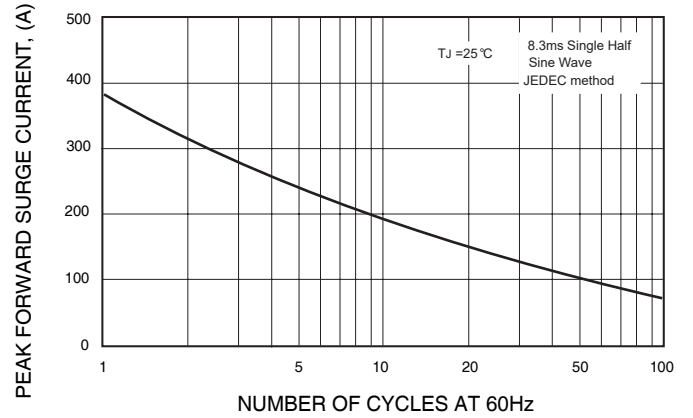


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

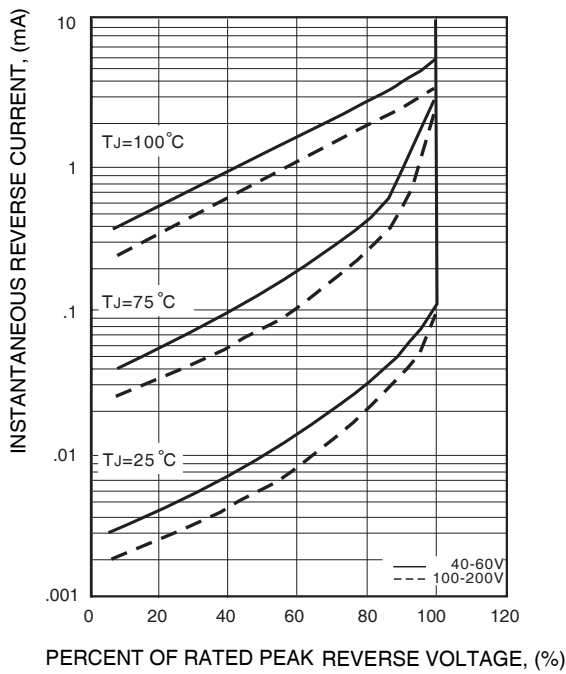


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

