

MBR40PT series

Schottky Barrier Rectifiers

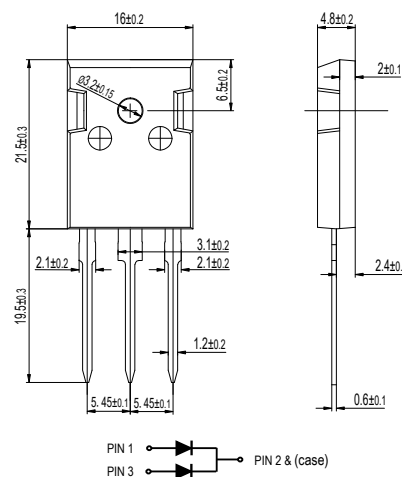
Features

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 grams

TO-247AD



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C)

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	IAV	40 20						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	IFSM	380						A
Typical thermal resistance (Note 1)	Rθ-JC	1.5						°C/W
Operating junction temperature range	TJ	-55 to +150				-55 to +175		°C
Storage temperature range	TSTG	-55 to +175						°C
CHARACTERISTICS	SYMBOL	MBR4040PT	MBR4045PT	MBR4060PT	MBR40100PT	MBR40150PT	MBR40200PT	UNIT
Maximum forward voltage per leg at IF=20A	VF	0.65		0.75	0.85	0.95		V
Maximum average reverse current at rated DC blocking voltage TJ=25°C TJ=100°C	IR	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

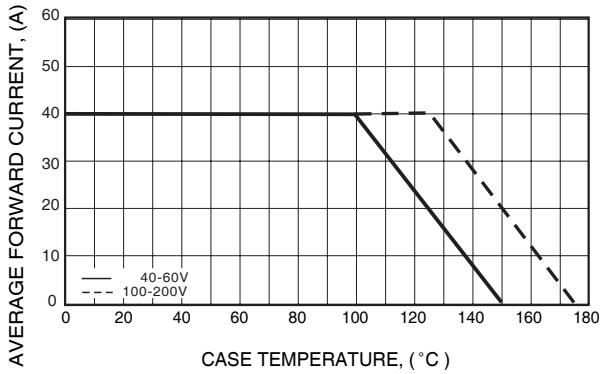


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

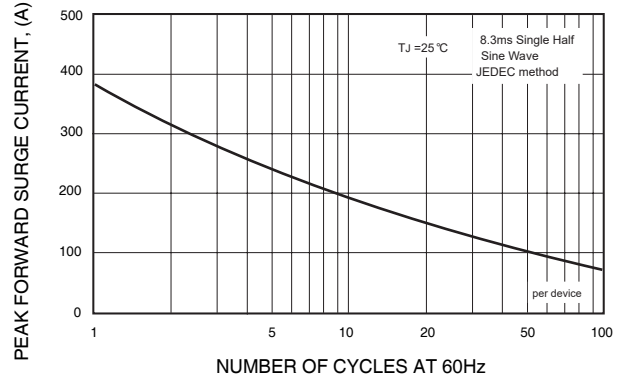


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

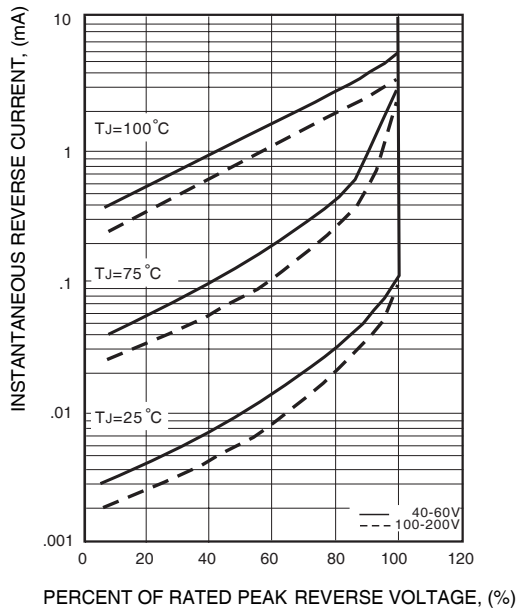


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

