MBR1040 - MBR10200

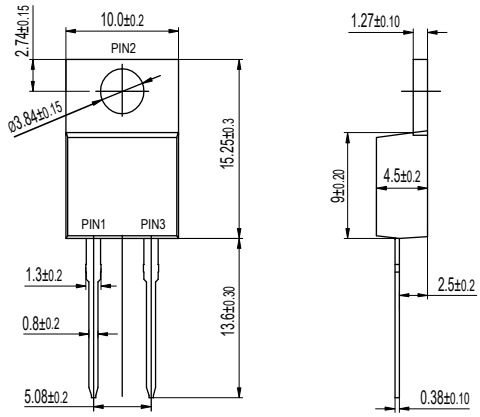
Schottky Barrier Rectifiers

Feaures

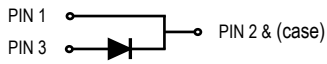
- High efficiencty operation
- Low power loss
- Low stored charge majority carrier conduction
- High forward surge capability
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

- Circuit figure: Single positive
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AC 1.80 grams



TO-220AC
MBR10XX



RoHS COMPLIANT

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Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

RATINGS	SYMBOL	MBR 1040	MBR 1045	MBR 1060	MBR 10100	MBR 10150	MBR 10200	UNIT
Maximum repetitive reverse voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	32	42	70	105	140	V
Maximum DC blocking voltage	VDC	40	45	60	100	150	200	V
Maximum average forward current	I_{AV}	10						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125						A
Typical thermal resistance (Note 1)	$R_{\theta-JC}$	2.0						°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=10A	V_F	0.65		0.75	0.85	0.92		V
Maximum average reverse current at rated DC blocking voltage TJ=25°C / TJ=125°C	I_R	0.10 15				0.01 5		mA

Notes: 1. Thermal resistance from junction to case.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

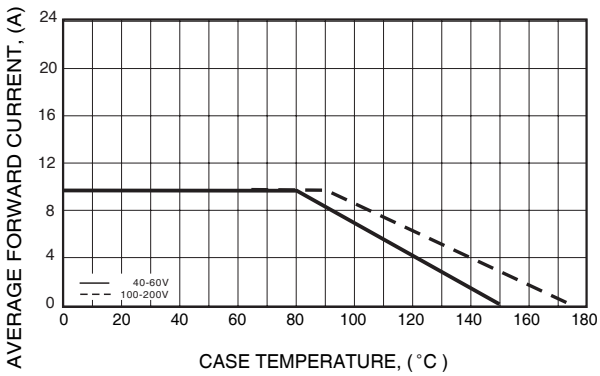

FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

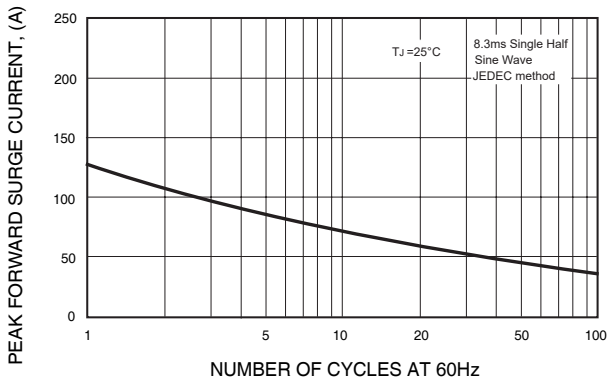

FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

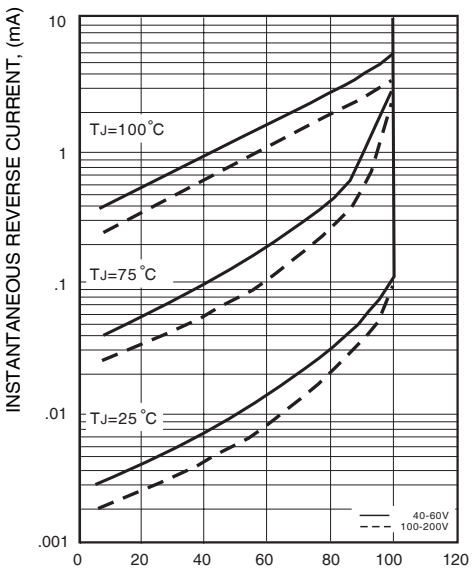

FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS