MBR4045CT THRU MBR40200CT

Reverse Voltage - 45 to 200 Volts Forward Current - 40.0 Ampere

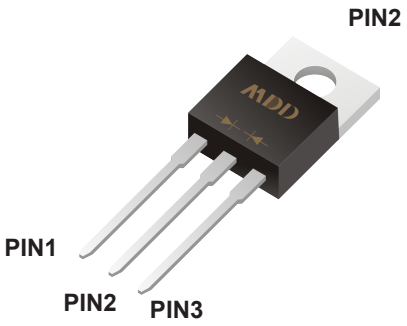
SCHOTTKY BARRIER RECTIFIER

Features

TO-220AB

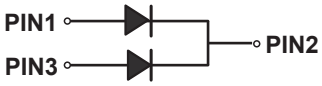
RoHS COMPLIANT

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250°C,0.25"(6.35mm) from case for 10 seconds



Mechanical Data

Case : JEDEC TO-220AB Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.060 ounce, 1.67 grams



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unlss otherwise specified.

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

Parameter / Marking Code	SYMBOLS	MDD MBR 4045CT	MDD MBR 4060CT	MDD MBR 40100CT	MDD MBR 40150CT	MDD MBR 40200CT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	32	42	70	135	140	V
Maximum DC blocking voltage	V_{DC}	45	60	100	150	200	V
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	40.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250			200		A
Maximum instantaneous forward voltage at 20.0A	V_F	0.70	0.75	0.85	0.95		V
Maximum DC reverse current at rated DC blocking voltage T_A=25℃	I_R	0.1					mA
T_A=100℃		20.0	30.0	10.0			
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	2.0					℃/W
Operating junction temperature range	T_J	-55 to +150					℃
storage temperature range	T_{STG}	-55 to +150					℃

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.Thermal resistance from junction to case.

Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

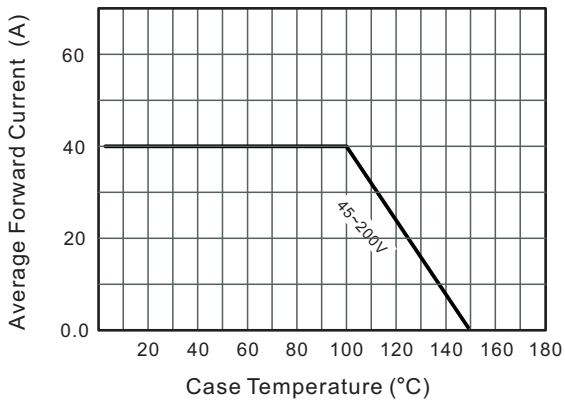


Fig.2 Typical Reverse Characteristics

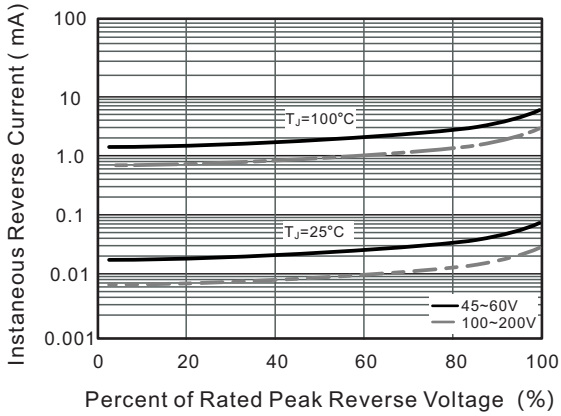


Fig.3 Typical Forward Characteristic(per leg)

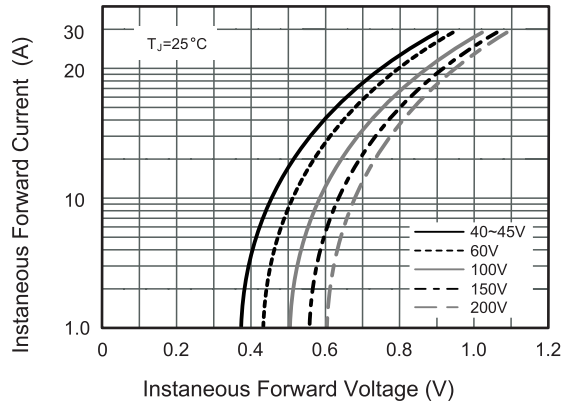


Fig.4 Typical Junction Capacitance

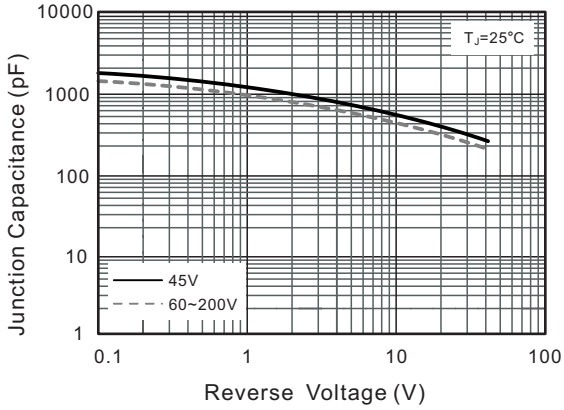


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

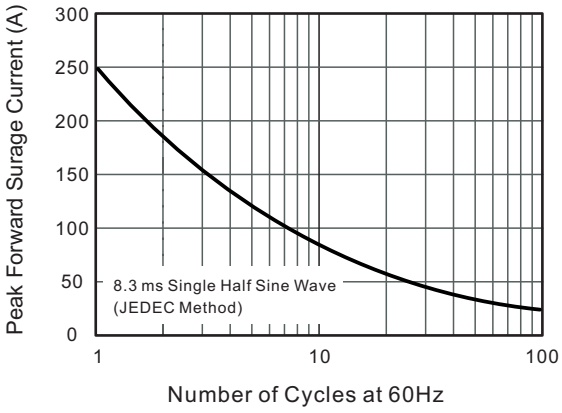
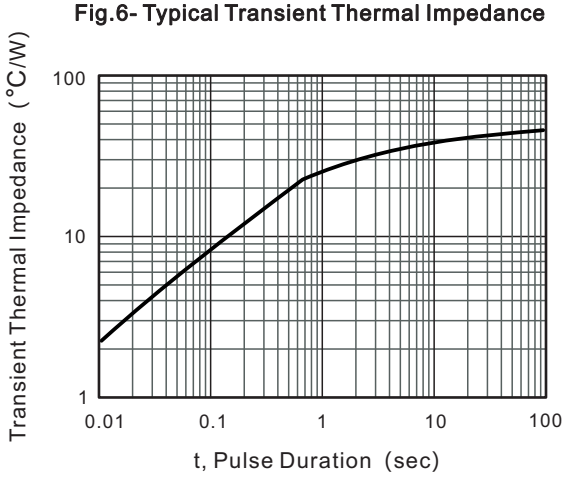


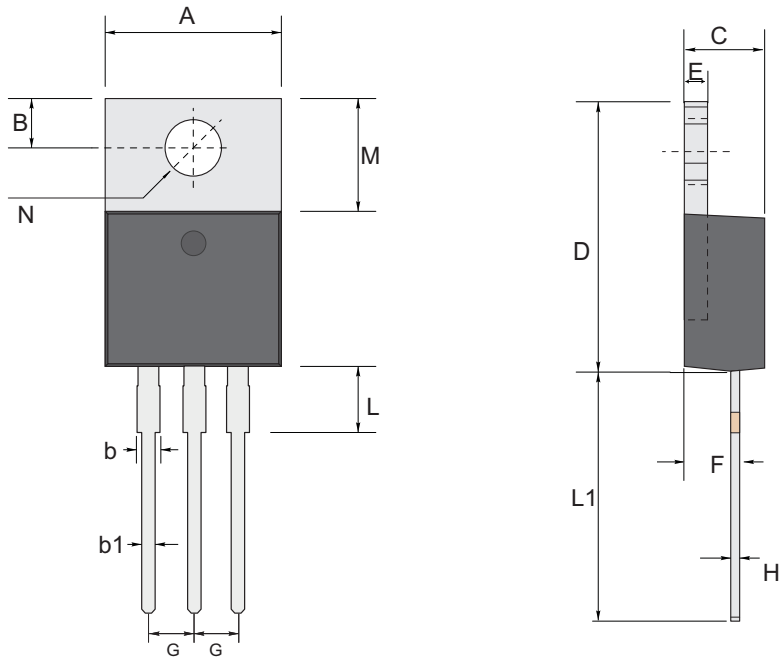
Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.

Outlitne

TO-220AB Package Outline Dimensions



TO-220AB mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N
mm	max	10.45	2.94	1.77	0.94	4.76	16.0	1.40	2.90	2.54 TYPICAL	0.64	4.2	14.79	6.60	3.86
	min	9.85	2.54	1.14	0.62	4.42	14.6	1.14	2.20		0.35	2.8	13.00	6.13	3.8

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