SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 30 - 100 V
CURRENT: 30 A

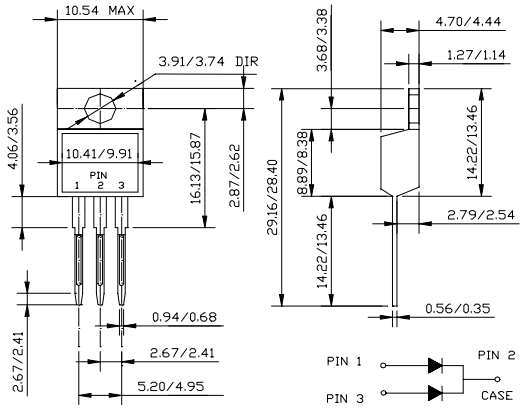
FEATURES

- ◇ High surge capacity.
- ◇ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ◇ Metal silicon junction, majority carrier conduction.
- ◇ High current capacity, low forward voltage drop.
- ◇ Guard ring for over voltage protection.

MECHANICAL DATA

- ◇ Case:JEDEC TO-220AB,molded plastic body
- ◇ Terminals:Leads, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.08ounce, 2.24 grams

TO-220AB



mm

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

		MBR 3030CT	MBR 3035CT	MBR 3040CT	MBR 3045CT	MBR 3050CT	MBR 3060CT	MBR 3080CT	MBR 30100CT	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	30	35	40	45	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	21	25	28	32	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	30	35	40	45	50	60	80	100	V
Maximum average forw ard total device rectified current @T_C = 105°C	$I_{F(AV)}$	30								A
Peak forw ard surge current 8.3ms single half sine-w ave superimposed on rated load	I_{FSM}	200								A
Maximum forward voltage (Note 1) (I_F=15A,T_C=25℃)	V_F	-				0.80		0.85		V
(I_F=15A,T_C=125℃)		0.57				0.70		0.65		
(I_F=30A,T_C=25℃)		0.84				0.95		0.95		
(I_F=30A,T_C=125℃)		0.72				0.85		0.75		
Maximum reverse current @T_C=25℃	I_R	1.0						0.2		m A
at rated DC blocking voltage @T_C=125℃		60						40		
Maximum thermal resistance (Note2)	$R_{\theta JC}$	6.8						4.4		℃/W
Operating junction temperature range	T_J	- 55 ---- + 150								℃
Storage temperature range	T_{STG}	- 55 ---- + 150								℃

NOTE: 1. Pulse test:300μs pulse width,1% duty cycle.

2. Thermal resistance from junction to case.

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FIG.1 -- PEAK FORWARD SURGE CURRENT

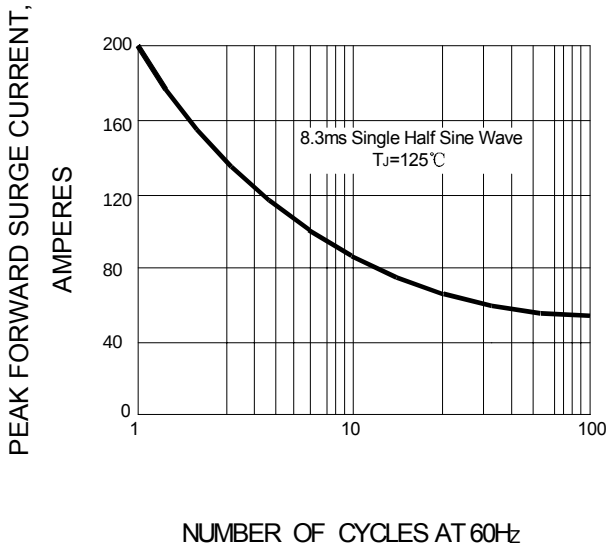


FIG.2 -- FORWARD DERATING CURVE

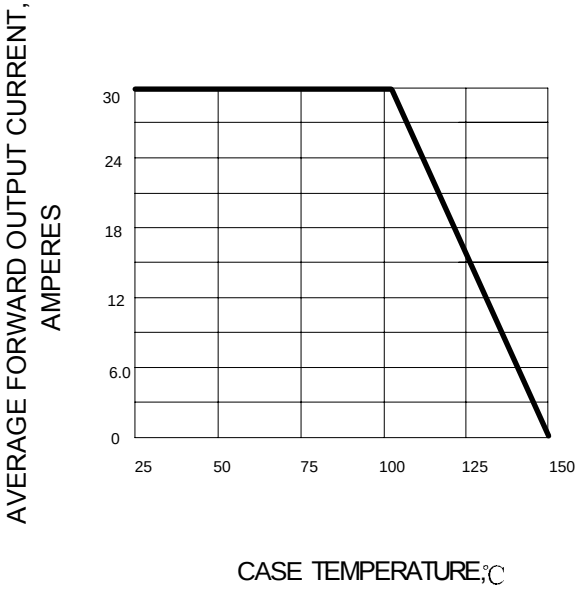


FIG.3 -- TYPICAL FORWARD CHARACTERISTIC

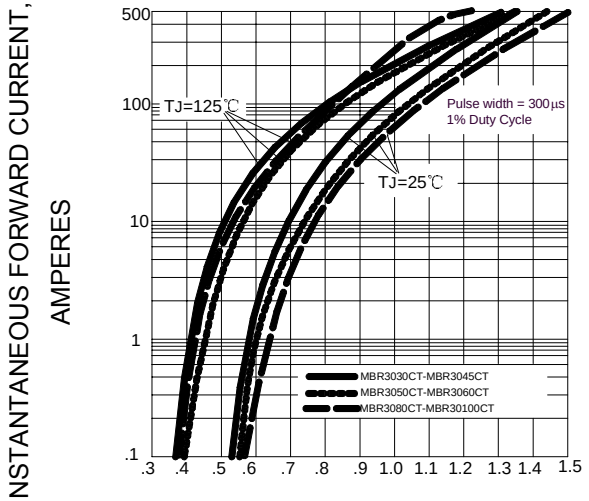


FIG.4 -- TYPICAL REVERSE CHARACTERISTIC

