

DUAL SCHOTTKY RECTIFIERS

VOLTAGE RANGE: 30 - 60 V
CURRENT: 10 A

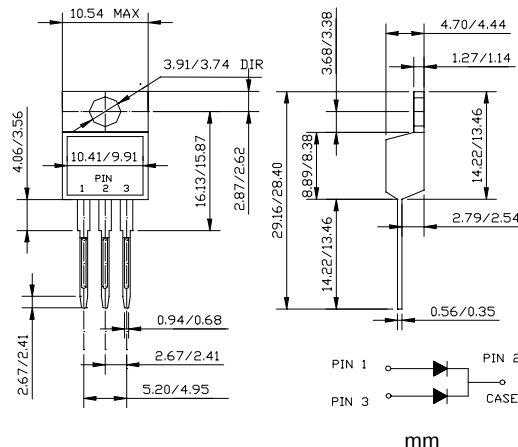
FEATURES

- ◇ 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
- ◇ Weight: 0.08 ounce, 2.24 grams
- ◇ Position: Any

TO-220AB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		MBR 1030CT	MBR 1035CT	MBR 1040CT	MBR 1045CT	MBR 1050CT	MBR 1060CT	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	30	35	40	45	50	60	V
Maximum RMS Voltage	V _{RMS}	21	25	28	32	35	42	V
Maximum DC blocking voltage	V _{DC}	30	35	40	45	50	60	V
Maximum average forw ard total device rectified current @T _C = 105°C	I _{F(AV)}	10.0						A
Peak forw ard surge current 8.3ms single half sine-w ave superimposed on rated load	I _{FSM}	125.0						A
Maximum forw ard voltage per leg (I _F =5.0A,T _C =125°C) (I _F =5.0A,T _C =25°C) (NOTE 1) (I _F =10 A,T _C =25 °C)	V _F	0.57 0.70 0.84				0.70 0.80 0.95		V
Maximum reverse current @T _C =25°C at rated DC blocking voltage @T _C =125°C	I _R	0.1 15.0						m A
Maximum thermal resistance per leg	R _{θJC}	30						K/W
Operating junction temperature range	T _J	- 55 ---- + 150						°C
Storage temperature range	T _{STG}	- 55 ---- + 150						°C

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

2. 2.0μs pulse width, f=1.0KHz

3. Thermal resistance from junction to case.

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FIG.1 -- FORWARD CURRENT DERATING CURVE

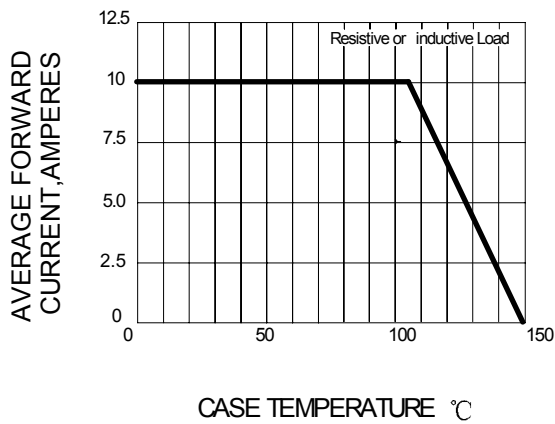


FIG.2 -- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

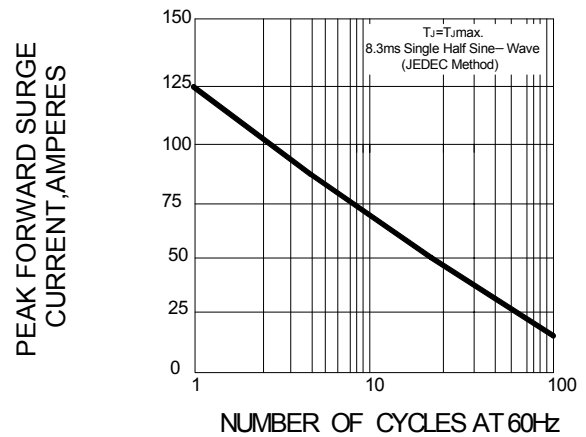


FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PERLEG

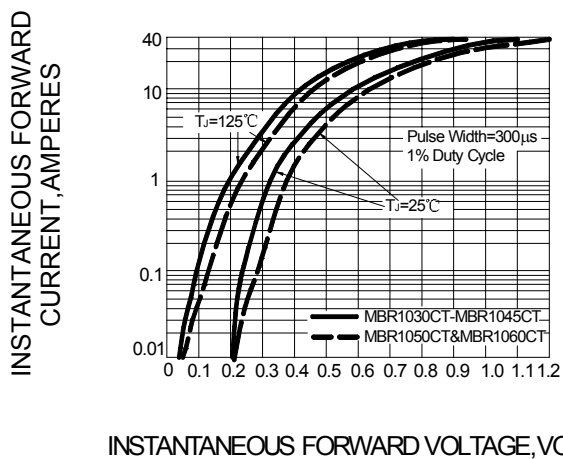


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

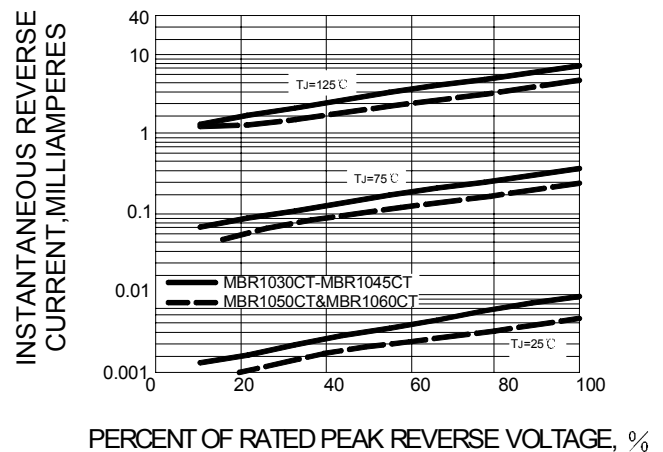


FIG.5--TYPICAL JUNCTION CAPACITANCE PERLEG

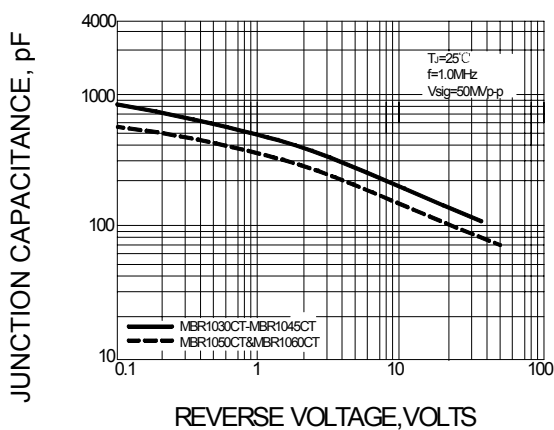


FIG.6--TYPICAL TRANSIENT THERMAL IMPEDANCE PERLEG

