

DUAL SCHOTTKY RECTIFIERS

VOLTAGE RANGE: 80 - 100 V

CURRENT: 10 A

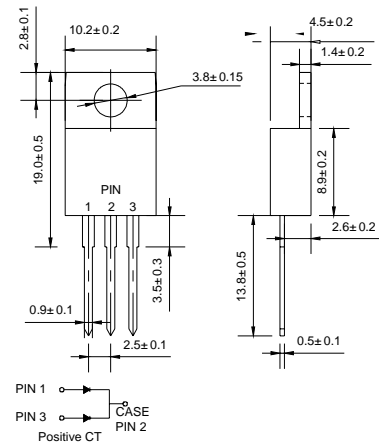
FEATURES

- ◇ 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: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.071 ounce, 2.006 grams
- ◇ Position: Any

TO-220AB



Dimensions in millimeters

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 1080CT	MBR 1090CT	MBR 10100CT	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	80	90	100	V
Maximum RMS Voltage	V_{RMS}	56	63	70	V
Maximum DC blocking voltage	V_{DC}	80	90	100	V
Maximum average forward rectified current @ $T_c = 105^\circ\text{C}$ total device per leg	$I_{F(AV)}$	10 5.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per leg	I_{FSM}	120			A
Maximum forward voltage per leg (NOTE 1) ($I_F=5.0\text{A}, T_c=125^\circ\text{C}$)	V_F	0.75			V
($I_F=5.0\text{A}, T_c=25^\circ\text{C}$)		0.85			
Maximum reverse current at rated DC blocking voltage @ $T_j=25^\circ\text{C}$	I_R	0.1			mA
@ $T_j=100^\circ\text{C}$		6.0			
Maximum thermal resistance per leg	$R_{\theta JC}$	4.4			$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	- 55 ---- + 150			$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ---- + 150			$^\circ\text{C}$

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

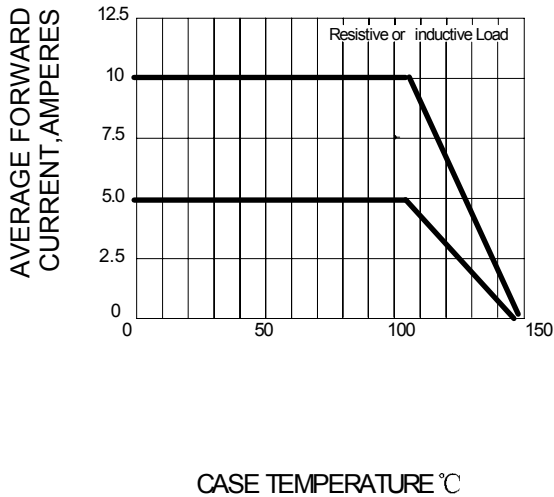


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

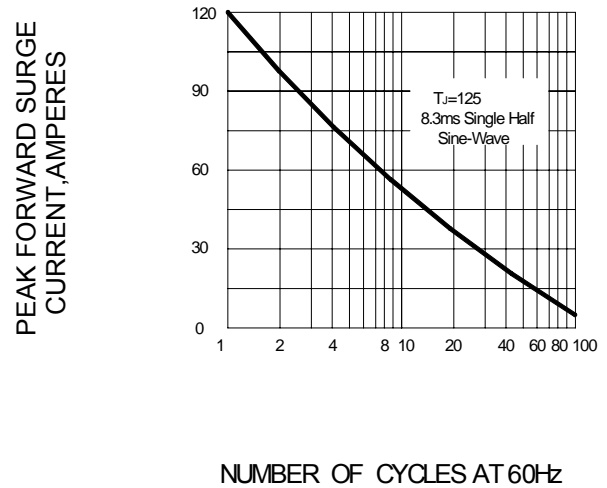


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PERLEG

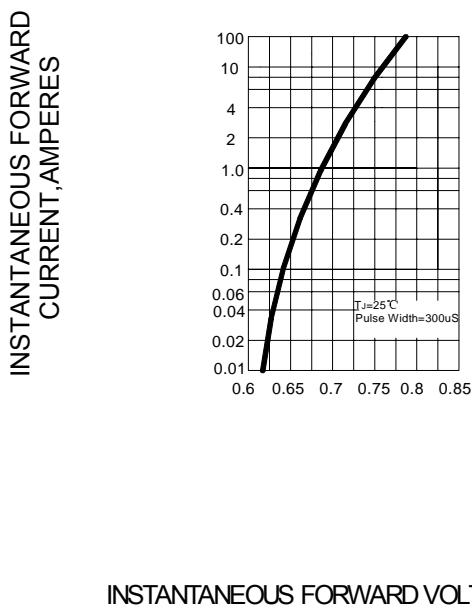


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

