

DUAL SCHOTTKY RECTIFIERS

VOLTAGE RANGE: 70 - 100 V

CURRENT: 20 A

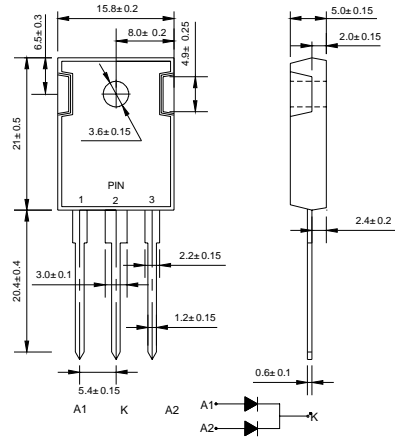
FEATURES

- ◇ 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-3P(TO-247AD), molded plastic body
- ◇ Terminals: Leads, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.223 ounce, 6.3 grams
- ◇ Position: Any

TO-3P(TO-247AD)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

		MBR2070PT	MBR2080PT	MBR2090PT	MBR20100PT	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	70	80	90	100	V
Maximum working peak reverse voltage	V_{RWM}	49	56	63	70	V
Maximum DC blocking voltage	V_{DC}	70	80	90	100	V
Maximum average forward total device rectified current @ $T_C = 133^\circ\text{C}$	$I_{F(AV)}$	20.0				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150.0				A
Maximum forward voltage per leg (NOTE 1)	V_F	($I_F=10A, T_C=25^\circ\text{C}$) 0.85 ($I_F=10A, T_C=125^\circ\text{C}$) 0.70 ($I_F=20A, T_C=25^\circ\text{C}$) 0.95 ($I_F=20A, T_C=125^\circ\text{C}$) 0.85				V
Maximum reverse current at rated DC blocking voltage	I_R	@ $T_A=25^\circ\text{C}$ 0.1 @ $T_A=125^\circ\text{C}$ 6.0				mA
Maximum junction capacitance (NOTE2)	C_T	400				pF
Operating junction temperature range	T_J	- 55 ---- + 150				°C
Storage temperature range	T_{STG}	- 55 ---- + 175				°C

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

2. $V_R=5V_{DC}$, (test signal range 100kHz to 1MHz)

FIG.1 – FORWARD CURRENT DERATING CURVE

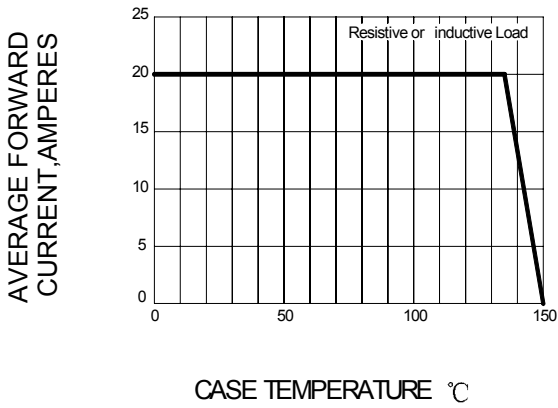


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

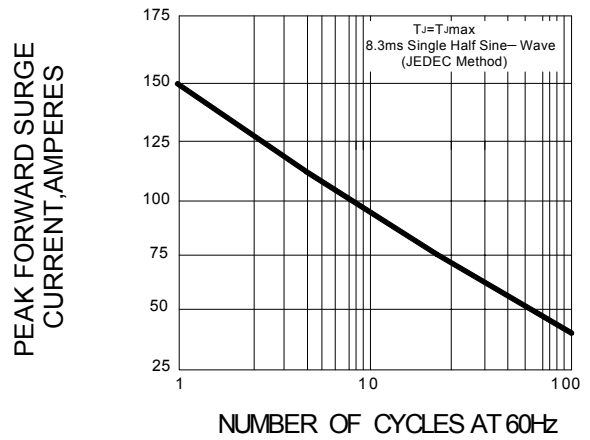


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

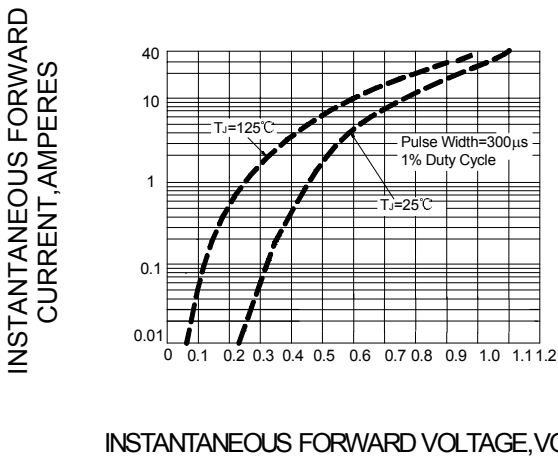


FIG.4 – TYPICAL REVERSE CHARACTERISTICS PER LEG

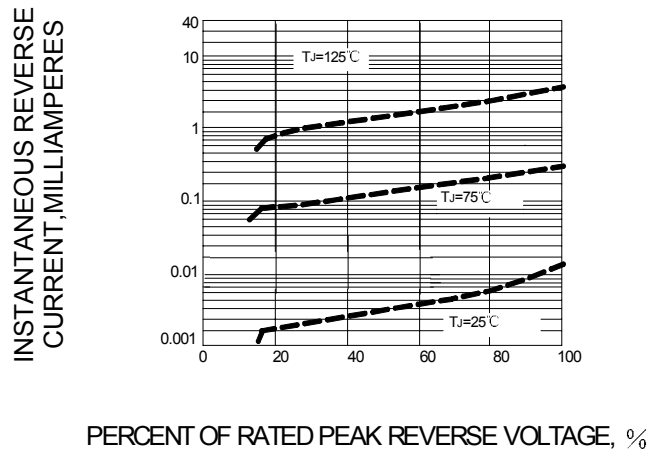


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG

