

## DUAL SCHOTTKY RECTIFIERS

VOLTAGE RANGE: 80 - 100 V

CURRENT: 16 A

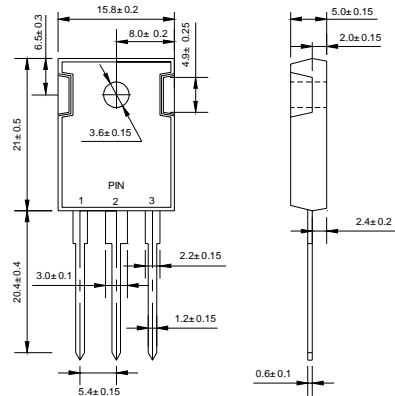
### FEATURES

- ◇ 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, molded plastic body
- ◇ Terminals: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.223 ounce, 6.3 grams
- ◇ Position: Any

### TO-3P



Dimensions in millimeters

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

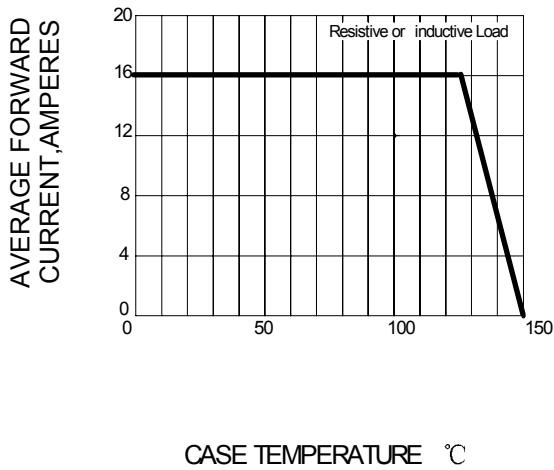
Ratings at 25°C ambient temperature unless otherwise specified.

		MBR 1680PT	MBR 16100PT	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	80	100	V
Maximum RMS Voltage	$V_{RMS}$	56	70	V
Maximum DC blocking voltage	$V_{DC}$	80	100	V
Maximum average forward total device rectified current @ $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	16		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150		A
Maximum forward voltage per leg ( $I_F=8.0\text{A}, T_c=25^\circ\text{C}$ ) (NOTE 1)	$V_F$	0.85		V
Maximum reverse current @ $T_c=25^\circ\text{C}$ at rated DC blocking voltage @ $T_c=125^\circ\text{C}$	$I_R$	1.0	100	mA
Maximum thermal resistance (NOTE 2)	$R_{\theta JC}$	1.5		$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	- 55 ---- + 150		$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- + 150		$^\circ\text{C}$

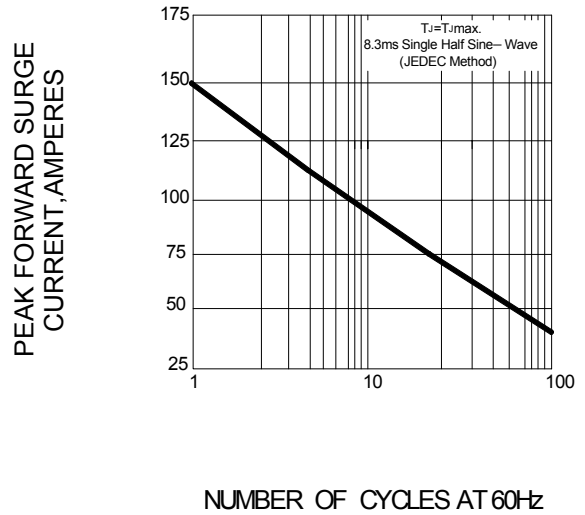
NOTE: 1. Pulse test: 300µs pulse width, 1% duty cycle.

2. Thermal resistance from junction to case and thermal resistance from junction to ambient.

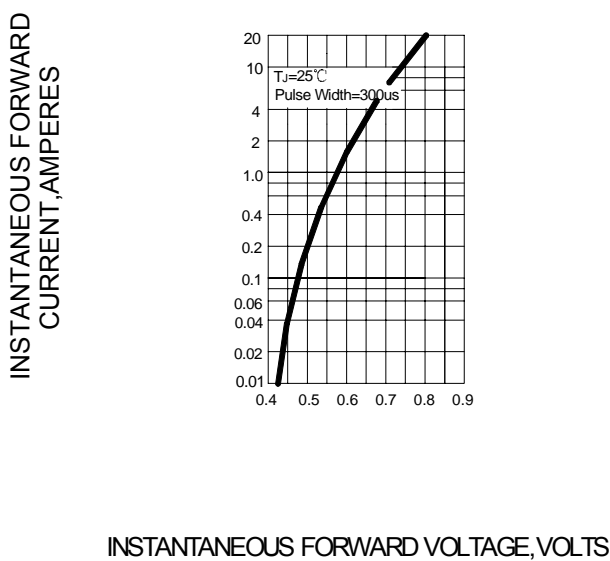
**FIG.1 – FORWARD CURRENT DERATING CURVE**



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



**FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PER LEG**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**

