

DUAL SCHOTTKY RECTIFIERS

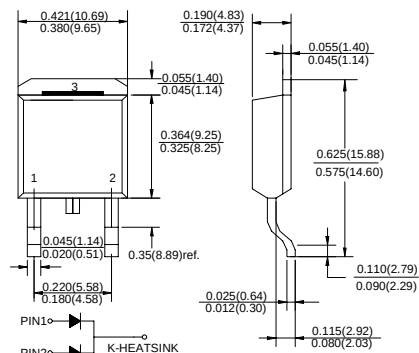
VOLTAGE RANGE: 35 - 60 V
CURRENT: 16 A

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 D²PAK, molded plastic body
- ◇ Terminals: Leads, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.087 ounces, 2.2 gram
- ◇ Position: Any

D²PAK

inch(mm)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

		MBRB 1635CT	MBRB 1645CT	MBRB 1650CT	MBRB 1660CT	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	35	45	50	60	V
Maximum RMS Voltage	V_{RMS}	25	32	35	42	V
Maximum DC blocking voltage	V_{DC}	35	45	50	60	V
Maximum average forward total device rectified current @ $T_C = 125^{\circ}C$	$I_{F(AV)}$	16.0				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0				A
Maximum forward ($I_F=8.0A, T_C=25^{\circ}C$) voltage per leg ($I_F=8.0A, T_C=125^{\circ}C$) (NOTE 1)	V_F	0.63 0.57		0.75 0.65		V
Maximum reverse current @ $T_C=25^{\circ}C$ at rated DC blocking voltage @ $T_C=125^{\circ}C$	I_R	0.2 40		1.0 50		m A
Maximum thermal resistance (NOTE 2)	$R_{\theta JC}$	1.5				$^{\circ}C/W$
Operating junction temperature range	T_J	- 55 ---- + 150				$^{\circ}C$
Storage temperature range	T_{STG}	- 55 ---- + 175				$^{\circ}C$

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

1. I also test: pulse width, 1% duty cycle.
2. Thermal resistance from junction to case and thermal resistance from junction to ambient.

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FIG.1 – FORWARD CURRENT DERATING CURVE

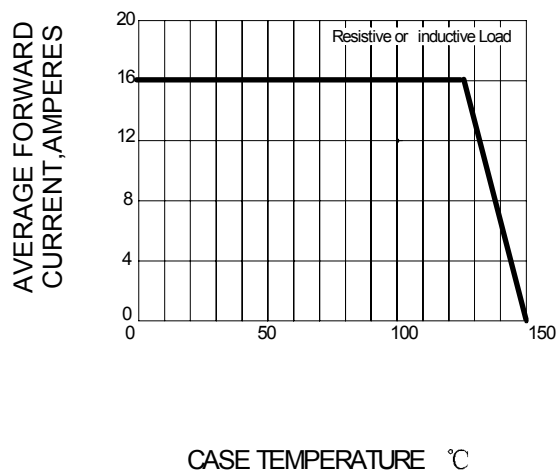


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

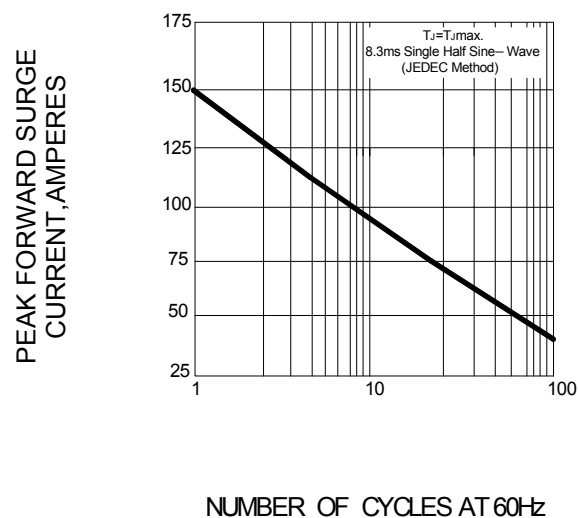


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PER LEG

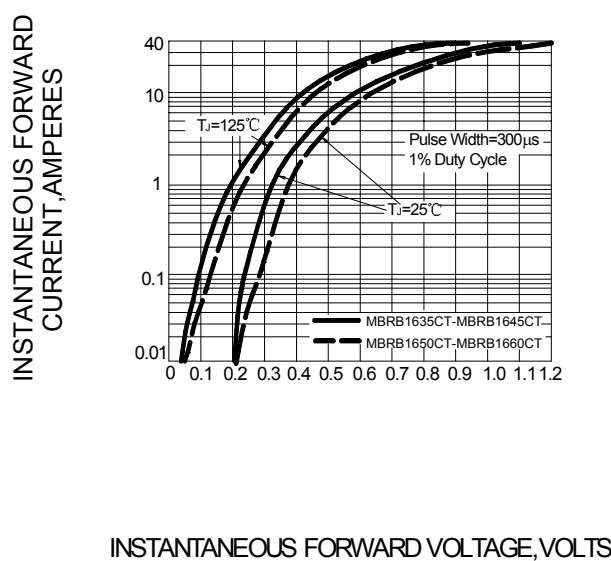


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

