MBR1630-MBR16100

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 30--- 100 V CURRENT: 16.0 A

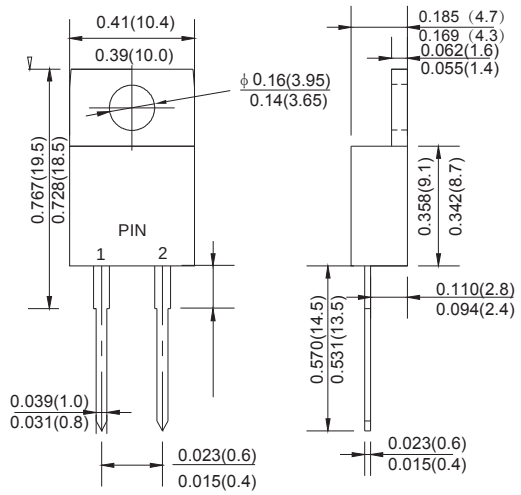
FEATURES

- ●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 forw ard voltage drop
- ●Guard ring for over voltage protection

MECHANICAL DATA

- ●Case: TO-220AC molded plastic body
- ●Terminals:Lead solderable per MIL-STD-750,method 2026
- ●Polarity: As marked
- ●Position: Any

TO-220AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.
For capacitive load,derate by 20%.

TYPE NUMBER		SYMBOL	MBR 1630CT	MBR 1635CT	MBR 1640CT	MBR 1645CT	MBR 1650CT	MBR 1660CT	MBR 1690CT	MBR 16100CT	UNITS
Maximum recurrent peak reverse voltage		V_{RRM}	30	35	40	45	50	60	90	100	V
Maximum RMS voltage		V_{RMS}	21	25	28	32	35	42	63	70	V
Maximum DC blocking voltage		V_{DC}	30	35	40	45	50	60	90	100	V
Maximum Average Forward rectified Current @TC = 125°C		$I_{F(AV)}$	16.0								A
Peak forw ard surge current 8.3ms single half b sine-w ave superimposed on rated load		I_{FSM}	150.0								A
Maximum forward Voltage (Note 1)	(IF=16A,TC=25℃)	V_F	0.63				0.75		0.85		V
	(IF=16A,TC=125℃)		0.57				0.65		--		
Maximum reverse current at rated DC blocking voltage	@T_A=25℃	I_R	0.2				1.0				mA
	@T_A=100℃		40.0				50.0				
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	1.5								℃/W
Storage Temperature		T_{STG}	- 55 ---- + 175								℃
Operation Junction Temperature		T_j	- 55 ---- + 150								℃

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

2. Thermal resistance from junction to case.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 --TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

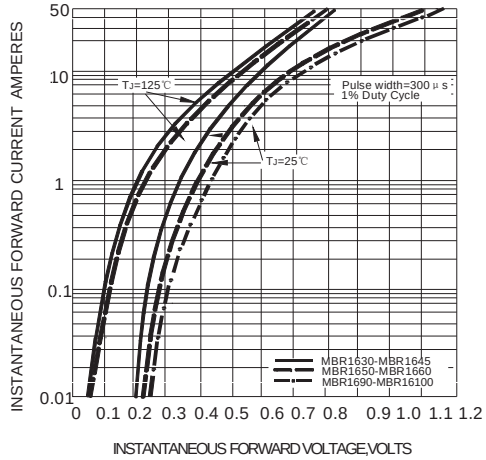


FIG.2 --MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

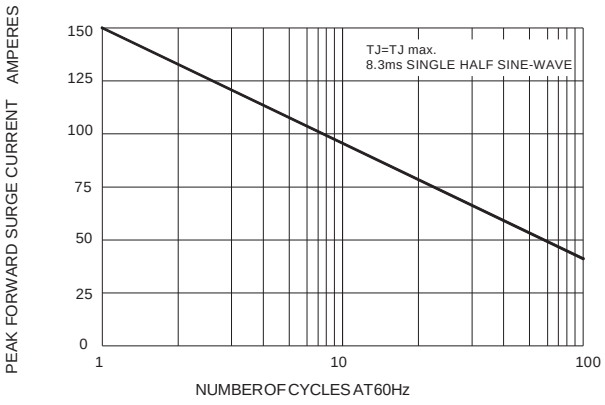


FIG.3--TYPICAL JUNCTION CAPACITANCE

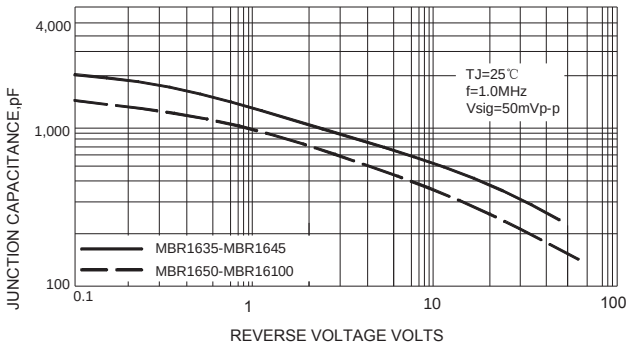


FIG.4--TYPICAL REVERSE CHARACTERISTICS

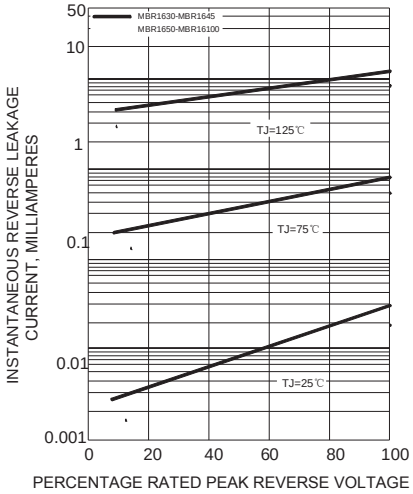


FIG.6--TYPICAL TRANSIENT THERMAL IMPEDANCE