



MBR1630CT thru MBR16150CT

SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 16.0 Amperes
<p>FEATURES</p> <ul style="list-style-type: none"> ●Metal of silicon rectifier , majority carrier conduction ●Guard ring for transient protection ●Low power loss,high efficiency ●High current capability,low VF ●High surge capacity ●Plastic package has UL flammability classification 94V-0 ●For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> ●Case: TO-220AB molded plastic ●Polarity: As marked on the body ●Weight: 0.08ounces,2.24 grams ●Mounting position :Any 	<p>TO-220AB</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave ,60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	MBR 1630CT	MBR 1640CT	MBR 1650CT	MBR 1660CT	MBR 1680CT	MBR 16100CT	MBR 16150CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V _{RMS}	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V _{DC}	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current (See Fig.1)	I _(AV)	16.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	150							A
Peak Forward Voltage (Note1)	V _F	IF=8A @T _J =25°C	0.84	0.75	0.85	1.05			V
		IF=8A @T _J =125°C	0.57	0.65	0.75	0.92			
		IF=16A @T _J =25°C	0.72	-	0.95	-			
		IF=16A @T _J =125°C	-	-	0.85	-			
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	@T _J =25°C	0.3			0.1			mA
		@T _J =125°C	10			5.0			
Typical Junction Capacitance (Note2)	C _J	400				200			pF
Typical Thermal Resistance (Note3)	R _{θJC}	3.0							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +175							°C

NOTES:1.300us pulse width,2% duty cycle.
 2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
 3.Thermal resistance junction to case.

FIG. 1 – FORWARD CURRENT DERATING CURVE

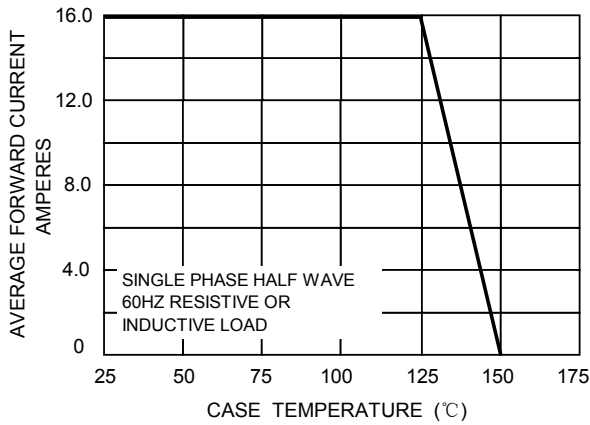


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

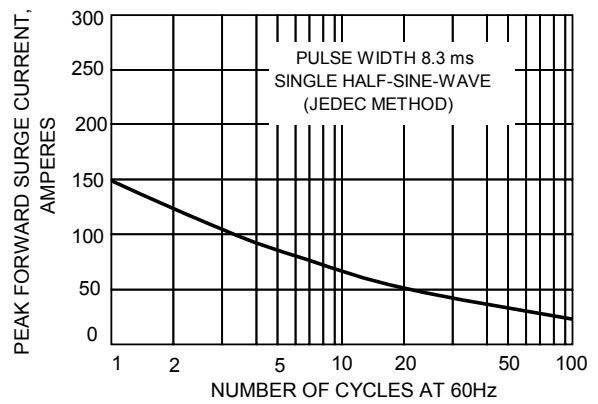


FIG.3-TYPICAL REVER CHARACTERISTICS

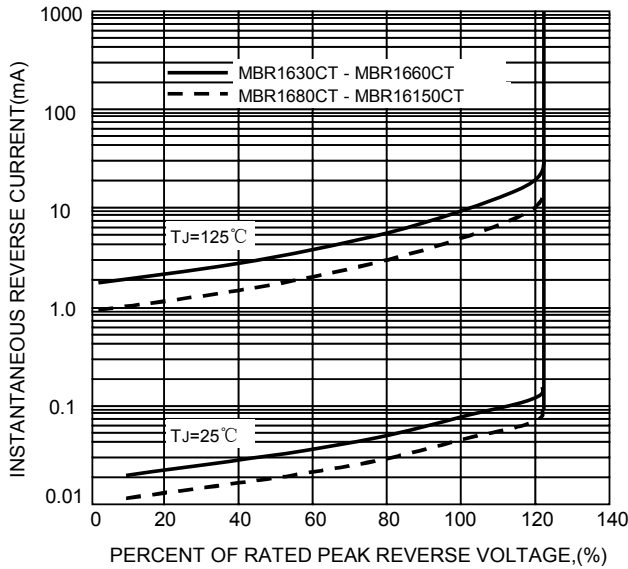


FIG.4-TYPICAL FORWARD CHARACTERISTICS

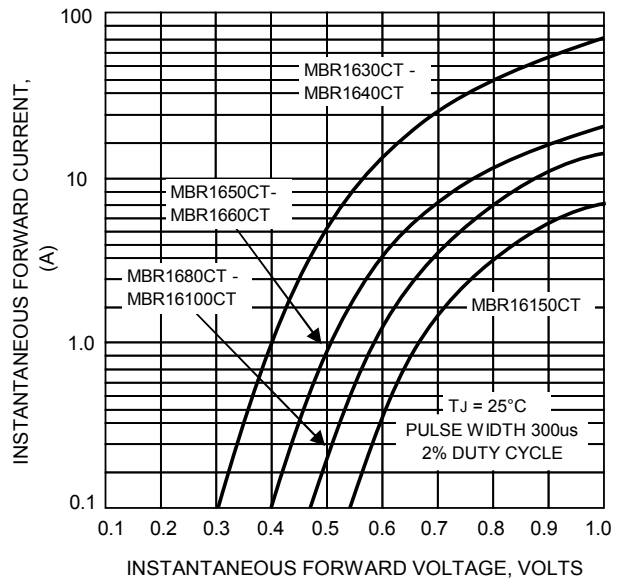


FIG.5 – TYPICAL JUNCTION CAPACITANCE

