

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **30 to 60** Volts
FORWARD CURRENT - **16** Amperes

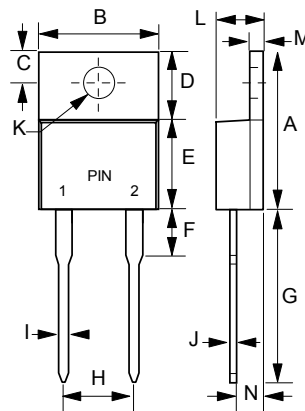
FEATURES

- 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

MECHANICAL DATA

- Case : TO-220AC molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

TO-220AC



TO-220AC		
DIM.	MIN.	MAX.
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	6.35
G	12.70	14.73
H	4.83	5.33
I	0.51	1.14
J	0.30	0.64
K	3.53 \varnothing	4.09 \varnothing
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

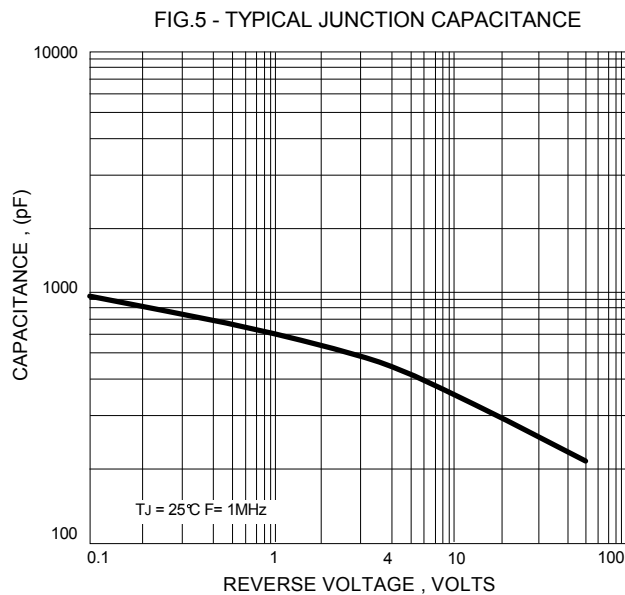
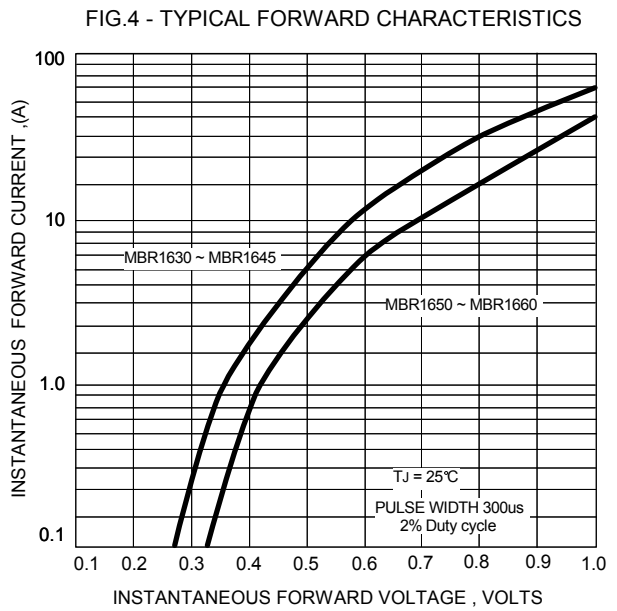
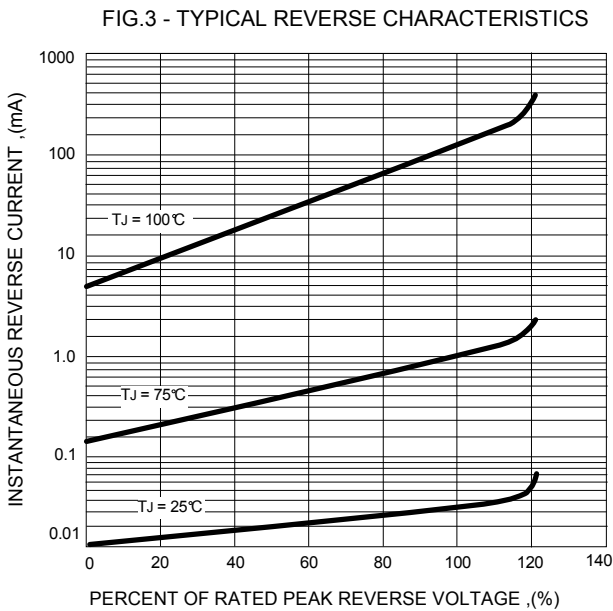
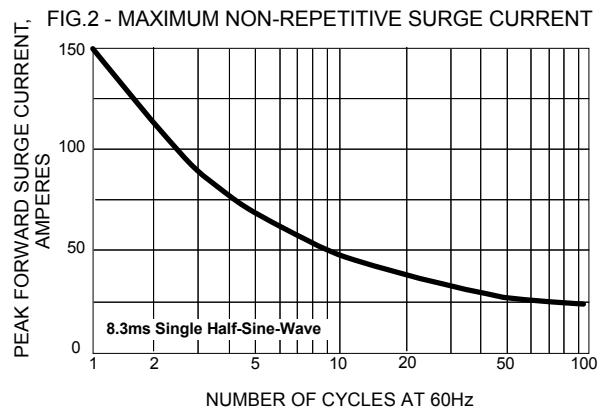
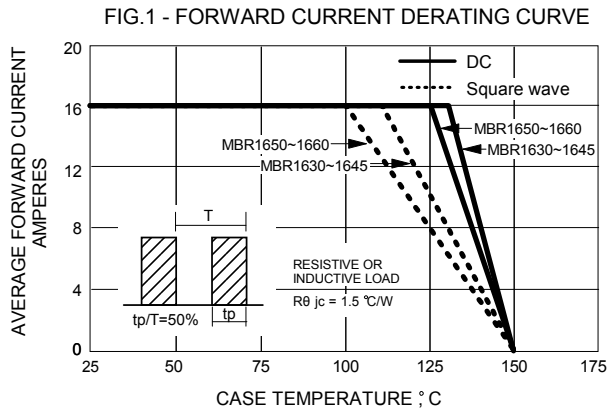
All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	MBR1630	MBR1635	MBR1640	MBR1645	MBR1650	MBR1660	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	30	35	40	45	50	60	V
Maximum RMS Voltage	VRMS	21	24.5	28	31.5	35	42	V
Maximum DC Blocking Voltage	VDC	30	35	40	45	50	60	V
Maximum Average Forward Rectified Current (See Fig.1)	I(AV)	16						A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	IFSM	150						A
Voltage Rate of Change (Rated VR)	dv/dt	10000				1000		V/us
Maximum Forward Voltage (Note 1)	VF	IF=16A @ TJ=25°C		0.63		0.75		V
		IF=16A @ TJ=125°C		0.57		0.65		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@TJ=25°C		0.2		1		mA
		@TJ=125°C		40		50		
Typical Thermal Resistance (Note 2)	RθJC	1.5				3		°C/W
Typical Junction Capacitance (Note 3)	CJ	450						pF
Operating Temperature Range	TJ	-55 to +150						°C
Storage Temperature Range	TSTG	-55 to +175						°C

- NOTES : 1. 300us Pulse width , 2% duty cycle.
2. Device mounted on 150*150*3mm copper plate.
3. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.



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