RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

MBR1045C THRU MBR10200C

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 45 to 200 Volts CURRENT 10.0 Ampere

FEATURES

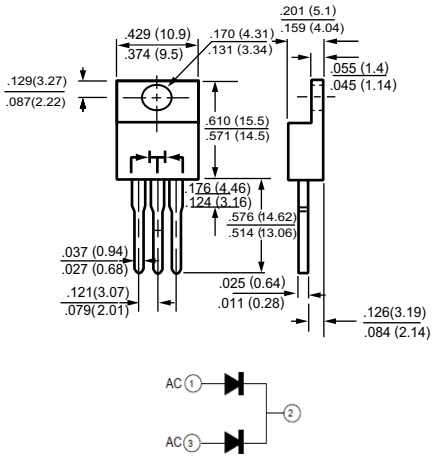
* Low switching noise
* Low forward voltage drop
* Low thermal resistance
* High current capability
* High switching capability
* High surge capabitity
* High reliability

MECHANICAL DATA

* Case: To-220 molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any



TO-220



Dimensions in inches and (millimeters).

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	MBR1045C	MBR1060C	MBR10100C	MBR10150C	MBR10200C	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	60	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	32	42	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	45	60	100	150	200	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I_O	10					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100					Amps
Typical Current Squared Time	I^2t	41					A^2S
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.0					°C/W
	$R_{\theta JA}$	40					
Operating Temperature Range	T_J	-55 to + 150					°C
Storage Temperature Range	T_{STG}	-55 to + 150					°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	MBR1045C	MBR1060C	MBR10100C	MBR10150C	MBR10200C	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC		V_F	.65	.75	.85	.90	.95	Volts
Maximum Average Reverse Current	@T_A = 25°C	I_R	0.2		0.1			mA
at Rated DC Blocking Voltage	@T_A = 150°C		80					mA

NOTES : 1. Thermal Resistance : Heat-sink mounted.
2. Suffix "A" = Common Anode.
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
4. "ROHS compliant".

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RATING AND CHARACTERISTICS CURVES (MBR1045C THRU MBR10200C)

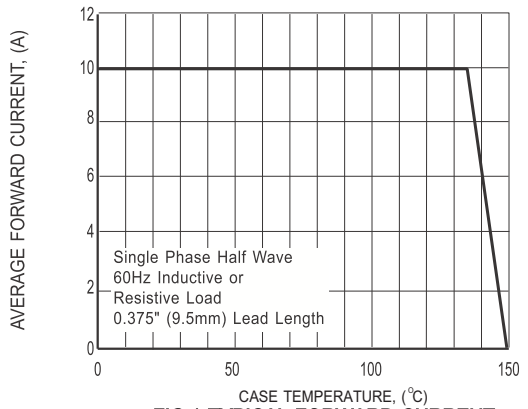


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

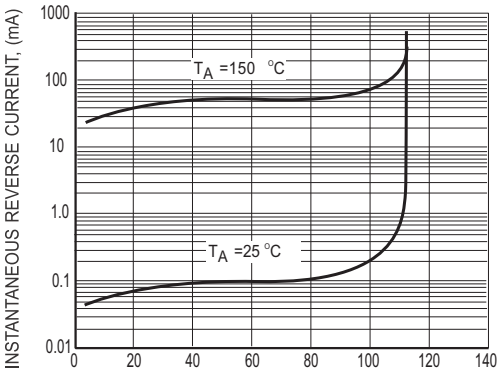


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

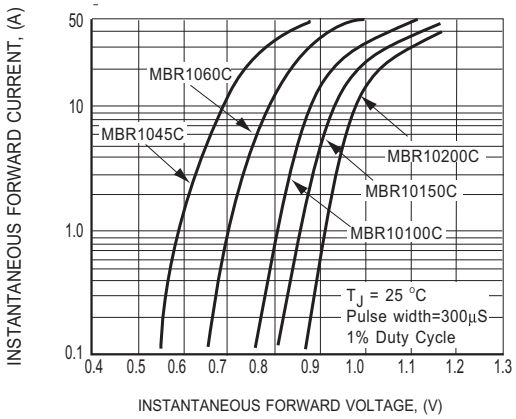


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

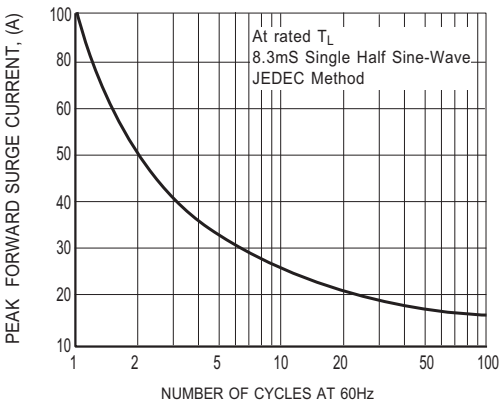


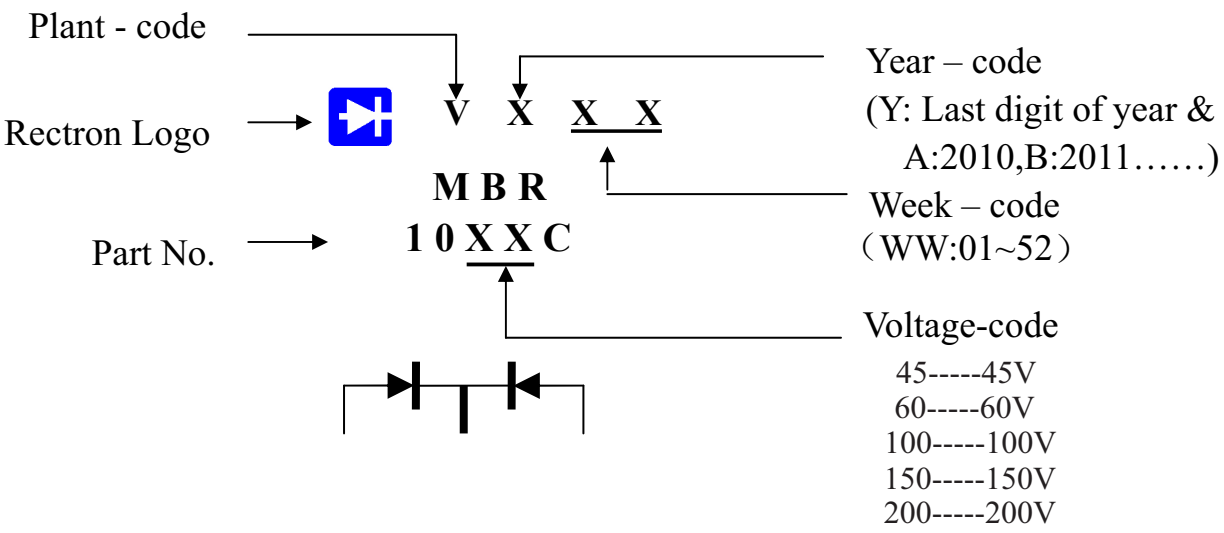
FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

RECTRON

1. Internal Circuit



2. Marking on the body



3. Items marked on the inner box and carton

3.1 On the box (for –C)

CUSTOMER
TYPE
LOT NO.
QUANTITY
Q.A.
DATE

3.2 On the carton

CUSTOMER
TYPE
QUANTITY
LOT NO.
REMARK

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
TO-220	-C	2,000	550*140*92	572*308*120	4,000	11.80

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