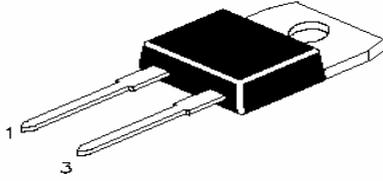


## SCHOTTKY BARRIER RECTIFIERS

## MBR16xx Series

### TO-220AC Plastic Package



PIN CONFIGURATION  
1. CATHODE  
2. N/A  
3. ANODE



For use in Low Voltage, High Frequency Inverters, Free Wheeling and Polarity Protection Applications

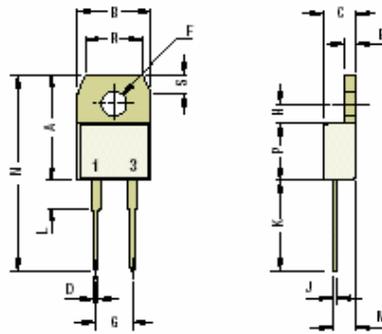
#### ABSOLUTE MAXIMUM RATINGS (T<sub>c</sub>=25°C)

DESCRIPTION	SYMBOL	MBR1635	MBR1645	MBR1650	MBR1660	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	35	45	50	60	V
Working Peak Reverse Voltage	V <sub>RWS</sub>	35	45	50	60	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	35	45	50	60	V
Maximum Average Forward Rectified Current at T <sub>c</sub> =125°C	I <sub>F(AV)</sub>	16				A
Peak Repetitive Forward Current (rated V <sub>R</sub> , sq. wave, 20KHz) at T <sub>c</sub> =125 °C	I <sub>FRM</sub>	32				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load ( JEDEC Method)	I <sub>FSM</sub>	150				A
Peak Repetitive Reverse Current at t <sub>p</sub> =2ms, 1KHz	I <sub>RRM</sub>	1.0		0.5		A
Voltage Rate of Change (Rated V <sub>R</sub> )	dv/dt	10,000		1,000		V/μS
Maximum instantaneous Forward Voltage at I <sub>F</sub> =16A T <sub>c</sub> =25°C at I <sub>F</sub> =16A T <sub>c</sub> =125°C	*V <sub>F</sub>	0.63		0.75		V
		0.57		0.65		V
Maximum DC Reverse Current T <sub>c</sub> =25°C at Rated DC Blocking Voltage T <sub>c</sub> =125°C	*I <sub>R</sub>	0.2		1.0		mA
		40		50		mA
Typical Thermal Resistance from Junction to Case	R <sub>th (J-C)</sub>	1.5				°C/W
Operating Junction Temperature Range	T <sub>j</sub>	- 55 to +150				°C
Storage Temperature Range	T <sub>stg</sub>	- 55 to +150				°C

\* Pulse test :-300ms Pulse Width, 1% duty cycle

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**TO-220AC**  
Leaded Plastic  
Package



DIM	Min	Max
A	13.40	14.20
B	9.91	10.41
C	4.40	4.70
D	0.68	0.94
E	1.14	1.39
F	3.74	3.91
G	4.95	5.20
H	3.43	3.68

DIM	Min	Max
J	0.35	0.58
K	13.48	14.22
L	3.55	4.05
M	2.54	2.79
N	28.40	29.16
P	8.38	8.89
R	—	10.54
S	2.82	2.87

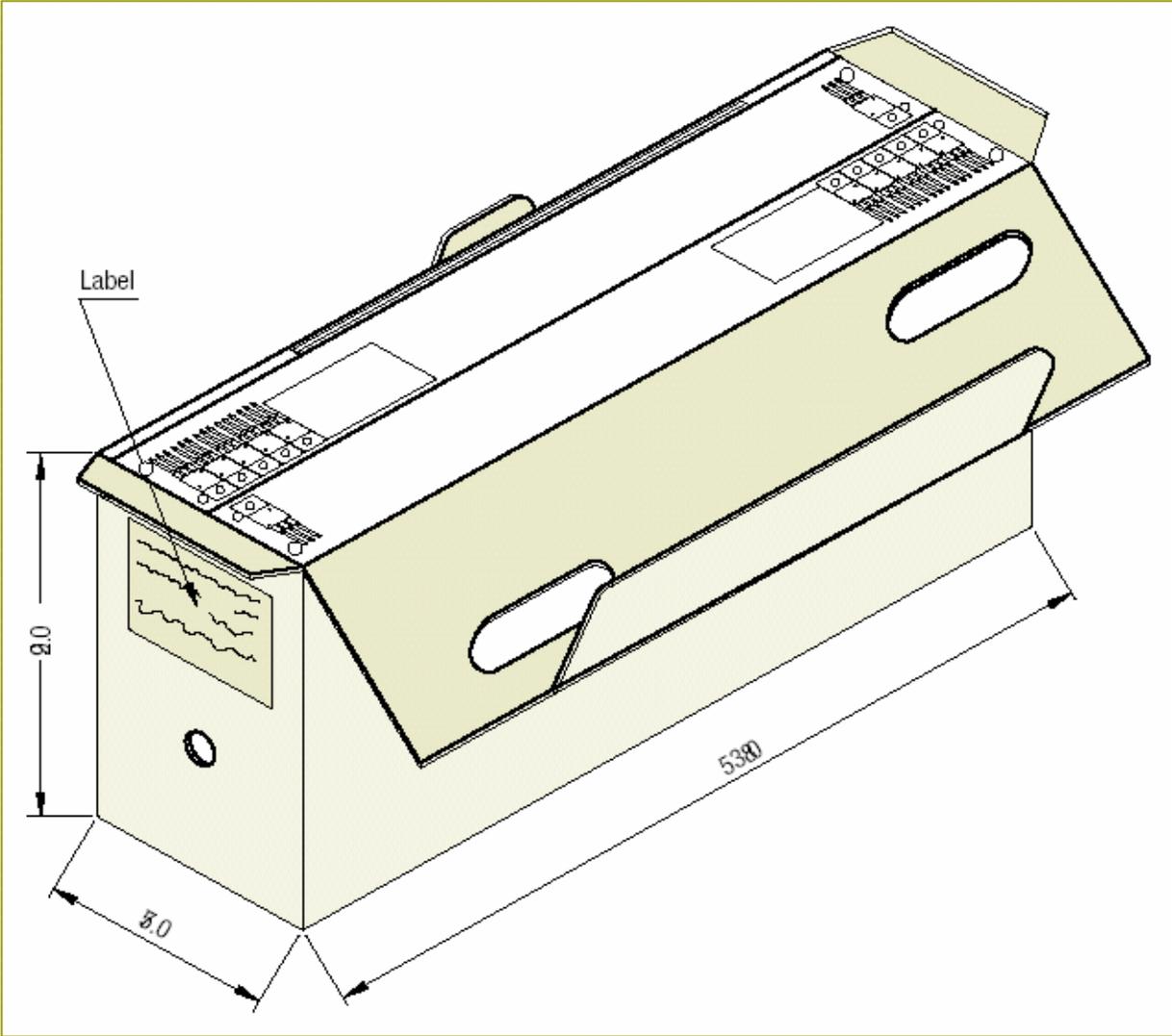
Pin Configuration Pin 1: Cathode Pin 2: N/A Pin 3: Anode



**... Packaging Specifications**

Package / Case Type	Packaging Type	Std. Packing Qty	Inner Carton			Outer Carton		
			Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
TO-220AC	Bulk	1000	2K	55 x 16.7 x 7.5	5.5	8K	57.0 x 34.5 x 17.0	23.0
	Tube	1000 (50 pcs/tube)	2K	55 x 16.7 x 7.5	5.5	8K	57.0 x 34.5 x 17.0	23.0

**Packaging for Tubes**



Packaging dimensions/carton dimensions are approximate. Illustration shows packaging box for TO-220 Series.  
For dimensions of other tube packaging, please refer to Packaging Specifications page.

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**Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

**Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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