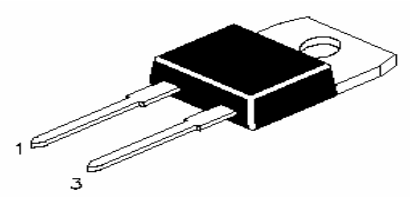
SCHOTTKY BARRIER RECTIFIERS

MBR16xx Series



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

TO-220AC
Plastic Package

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

ABSOLUTE MAXIMUM RATINGS (T_c=25ºC)

DESCRIPTION	SYMBOL	MBR1635	MBR1645	MBR1650	MBR1660	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	35	45	50	60	V
Working Peak Reverse Voltage	V_{RWS}	35	45	50	60	V
Maximum DC Blocking Voltage	V_{DC}	35	45	50	60	V
Maximum Average Forward Rectified Current at T_c=125ºC	$I_{F(AV)}$	16				A
Peak Repetitive Forward Current (rated V_R, sq. wave, 20KHz) at T_c=125 ºC	I_{FRM}	32				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150				A
Peak Repetitive Reverse Current at t_p=2ms, 1KHz	I_{RRM}	1.0		0.5		A
Voltage Rate of Change (Rated V_R)	dv/dt	10,000		1,000		V/µS
Maxmium instantaneous Forward Voltage						
at I_F=16A T_c=25ºC	*V_F	0.63		0.75		V
at I_F=16A T_c=125ºC		0.57		0.65		V
Maximum DC Reverse Current T_c=25ºC	*I_R	0.2		1.0		mA
at Rated DC Blocking Voltage T_c=125ºC		40		50		mA
Typical Thermal Resistance from Junction to Case	$R_{th\ (J-C)}$	1.5				ºC/W
Operating Junction Temperature Range	T_j	- 55 to +150				ºC
Storage Temperature Range	T_{stg}	- 55 to +150				ºC

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

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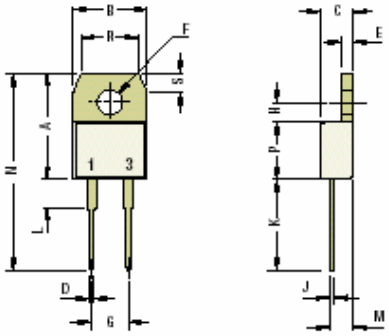
TO-220AC
Leaded Plastic Package



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	Inner Carton			Outer Carton		
		Qty	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

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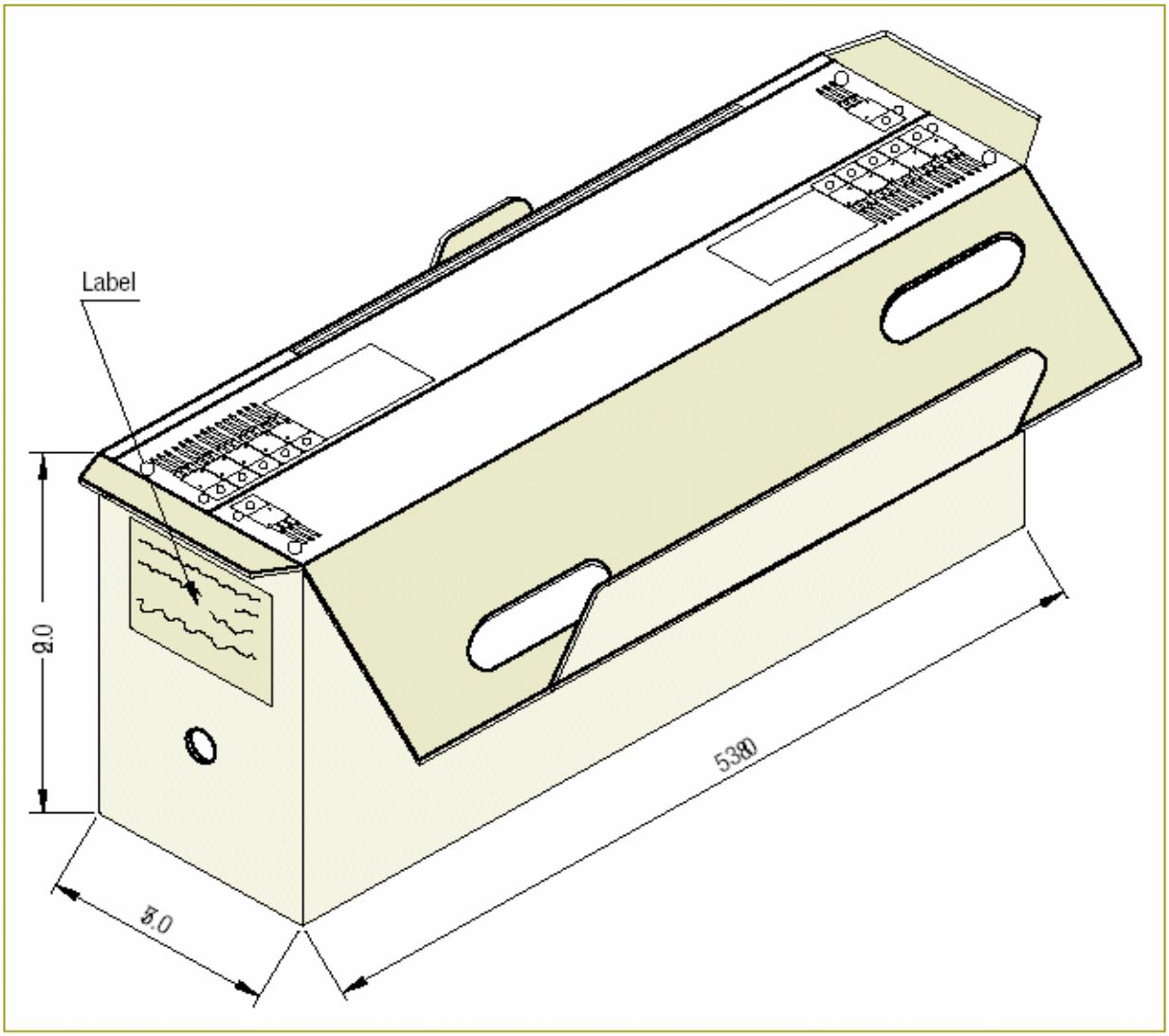
Packaging for Tubes



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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TO-220AC
Plastic Package

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

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