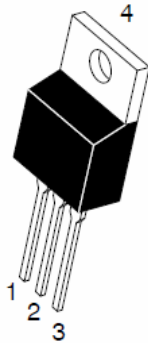
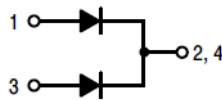
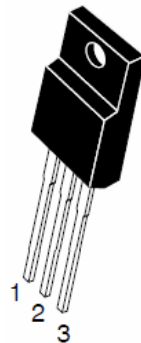


## SCHOTTKY BARRIER RECTIFIER

**TO-220AB  
MBR2045CT**



**ITO-220AB  
MBR2045CTF**



### Features

- Low forward voltage drop
- Low power losses
- High efficiency operation
- Lead Free Finish, RoHS Compliant

### Applications

- DC/DC Converters
- AC/DC Adaptors
- Switching Power Supplies
- Freewheeling Diodes

### Maximum ratings and electrical characteristics (T<sub>J</sub> = 25°C unless otherwise noted)

Parameter		Symbol	Limit		Unit
Maximum repetitive peak reverse voltage		VRRM	45		V
Maximum average forward rectified current	per device	IF(AV)	20		A
	per diode		10		
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode		IFSM	260		A
Operating junction and storage temperature range		T <sub>J</sub> , T <sub>STG</sub>	-50 to +150		°C
Typical thermal resistance per leg	TO-220AB	R <sub>θJC</sub>	2		°C/W
	ITO-220AB		4		°C/W
Instantaneous forward voltage per diode			TYP.	MAX.	V
	IF=3A	T <sub>J</sub> =25°C	0.42	0.48	
	IF=3A	T <sub>J</sub> =125°C	0.37	-	
	IF=10A	T <sub>J</sub> =25°C	0.56	0.60	
Instantaneous reverse current per diode at rated reverse voltage			10	50	μA
			5	-	mA

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≲ 40 ms

## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

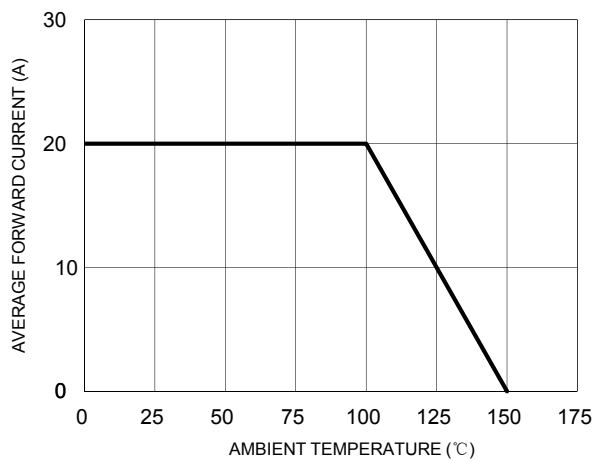


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

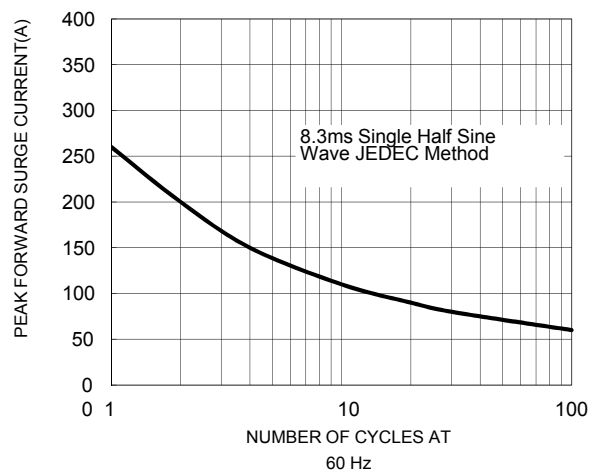


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

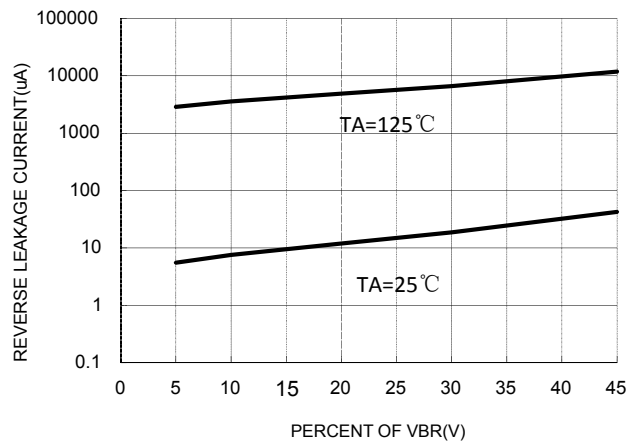
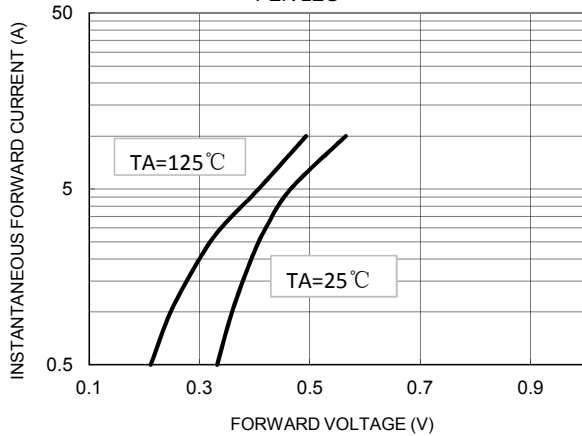


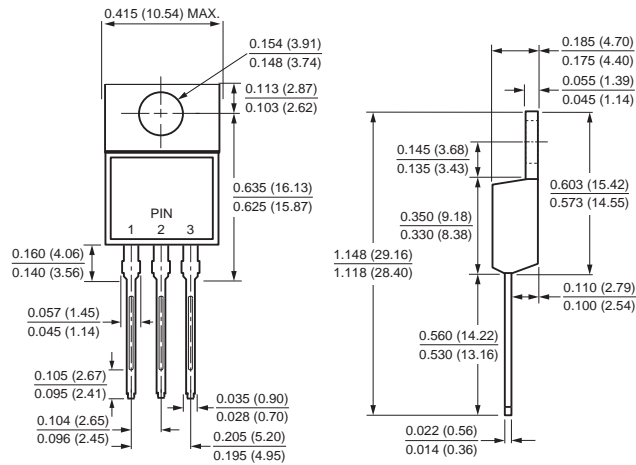
FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG



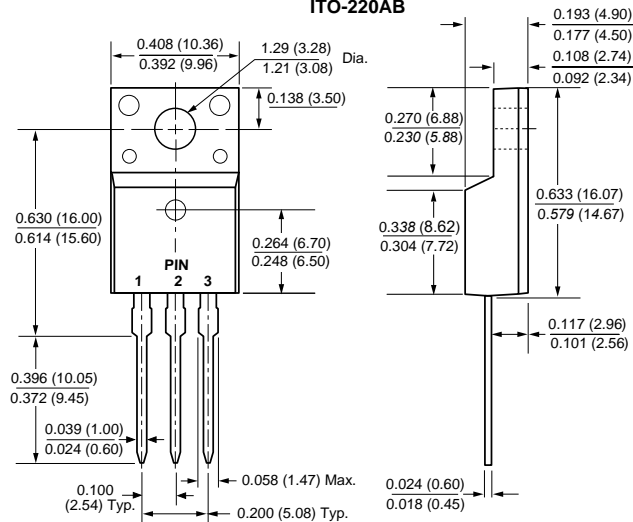
## PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)

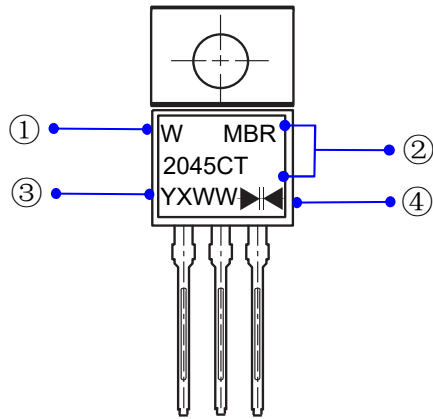
TO-220AB



ITO-220AB

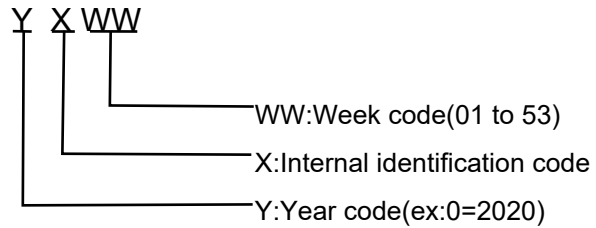



## Marking Information



①W : Company's trademark  
②Product model : MBR2045CT or MBR2045CTF

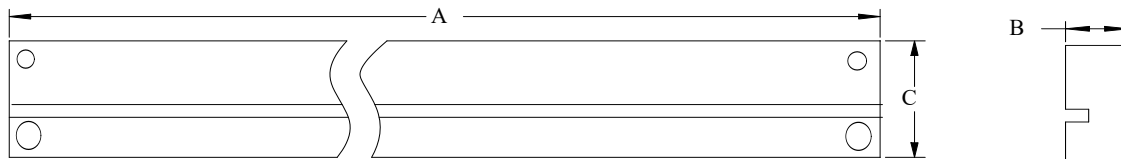
③PDC information:



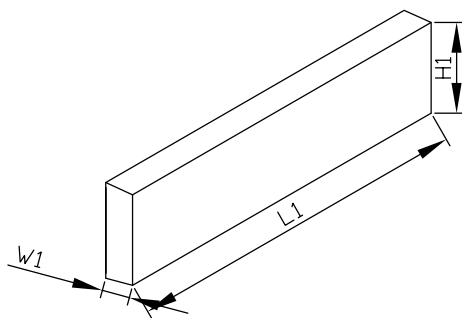
④  Double wafer

## Packaging Information

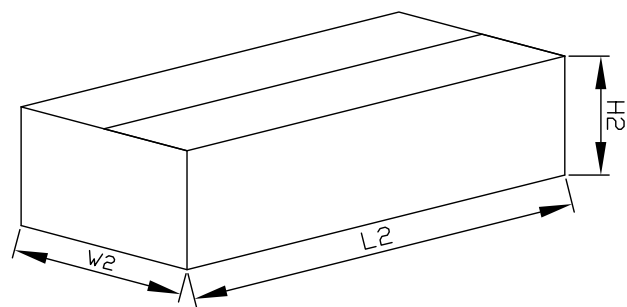
### 1. Tube Dimensions



### 2. Inside Box



### 3. Outside Box



## Packaging Information

NO	UNIT	Tube Dimensions			Inside Box			Outside Box		
		A	B	C	L1	W1	H1	L2	W2	H2
Size	mm	530	7	33	570	46	150	590	260	180
QTY	PCS	50PCS/Tube			Smallest package, 1000PCS, 20 tube in total			5,000PCS/carton, 5 boxes in total		
Note	Tolerance ≤20mm, ±3mm; 21-100mm, ±5mm; 101-500mm, ±10mm									