

### Description

The CTMBR2045CTDP is TO-252 Plastic package Schottky diode .

### Features

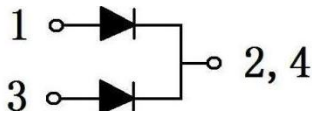
- Low forward voltage drop
- low power losses
- High efficiency operation

### Applications

- For use in low voltage
- High frequency inverters
- Free wheeling
- Polarity protection applications

$V_{RM}$	$I_{F(AV)}$ (total)	$I_{FSM}$
45V	2×10A	200A

### Equivalent Circuit & Pinning



PIN1: Anode    PIN 2, 4: Cathode    PIN 3: Anode

### Marking

See Marking Instructions.

**Absolute Maximum Ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Reverse Voltage	$V_{RRM}$ $V_{RWM}$ $V_{DC}$	45	V
RMS Reverse Voltage	$V_{RMS}$	31.5	V
Average forward rectified Current	$I_{F(AV)}$	2×10	A
Non Repetitive Peak Surge Current	$I_{FSM}$	200	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	2	°C/W
Junction and Storage Temperature Range	$T_j T_{stg}$	-55~+150	°C

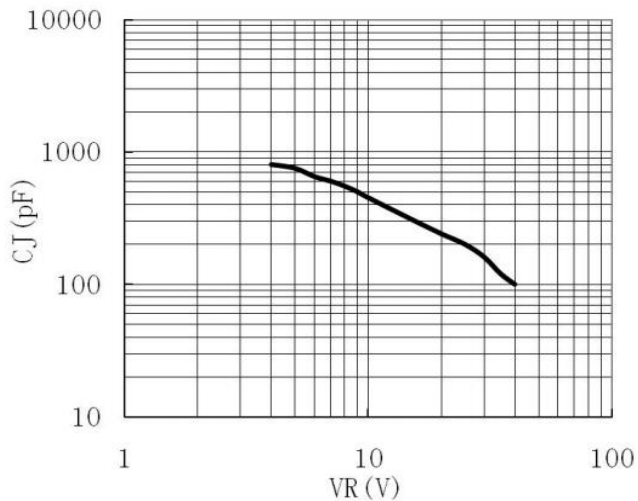
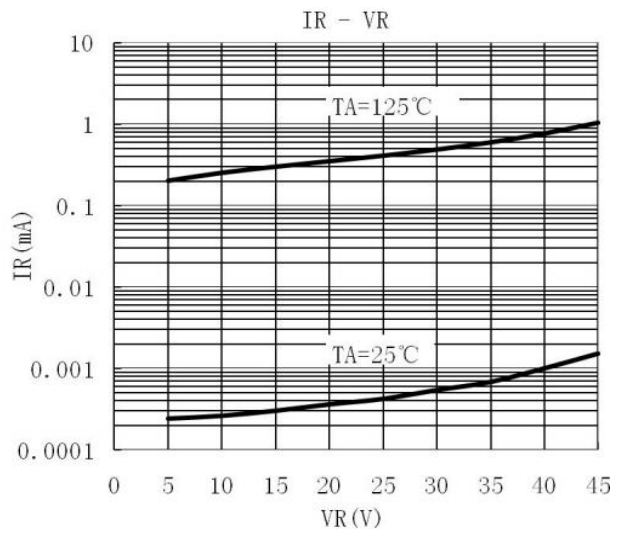
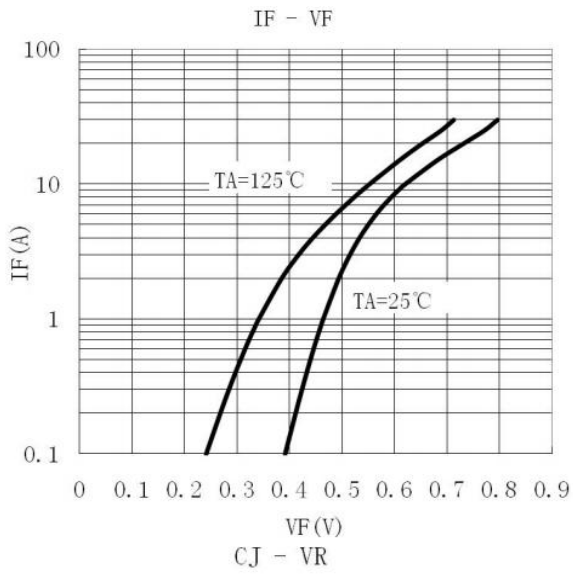
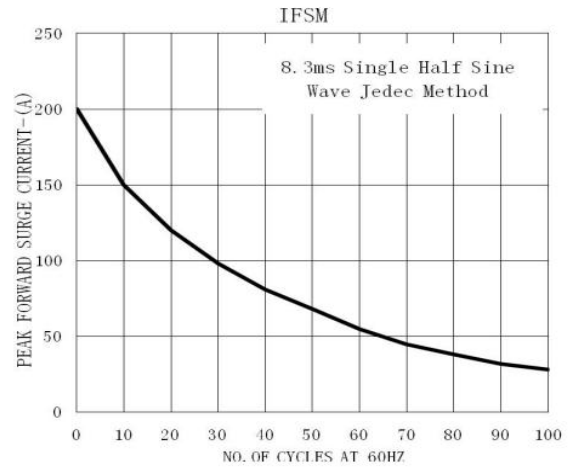
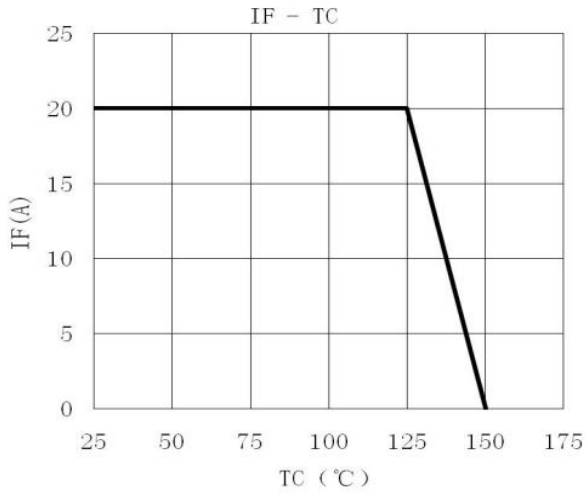
**Electrical Characteristics(Ta=25°C)**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	$V_{(BR)R}$	$I_R = 1mA$ $T_a = 25^\circ C$	45			V
Peak Forward Voltage	$V_{FM}$	$I_F = 5.0A$ $T_a = 25^\circ C$			0.60	V
		$I_F = 5.0A$ $T_a = 125^\circ C$			0.50	V
		$I_F = 10A$ $T_a = 25^\circ C$			0.70	V
		$I_F = 10A$ $T_a = 125^\circ C$			0.60	V
Instantaneous Reverse Current	$I_R$ (Note 1)	$V_R = 45V$ $T_a = 25^\circ C$			100	uA
		$V_R = 45V$ $T_a = 125^\circ C$			15	mA

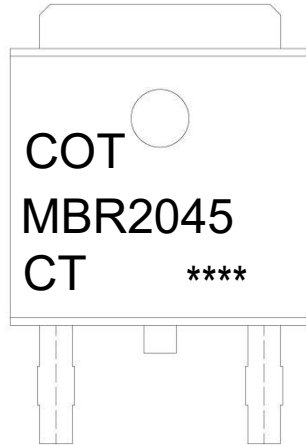
Notes:

1. Short duration pulse test used to minimize self-heating effect.
2. Unless otherwise noted, values for the parameters of a single chip

Electrical Characteristic Curve



Marking instructions



Note:

COT: Company Code

MBR2045: Product Type.

CT: Internal Structure

\*\*\*\*: Lot No. Code, code change with Lot No.

Packaging SPEC.

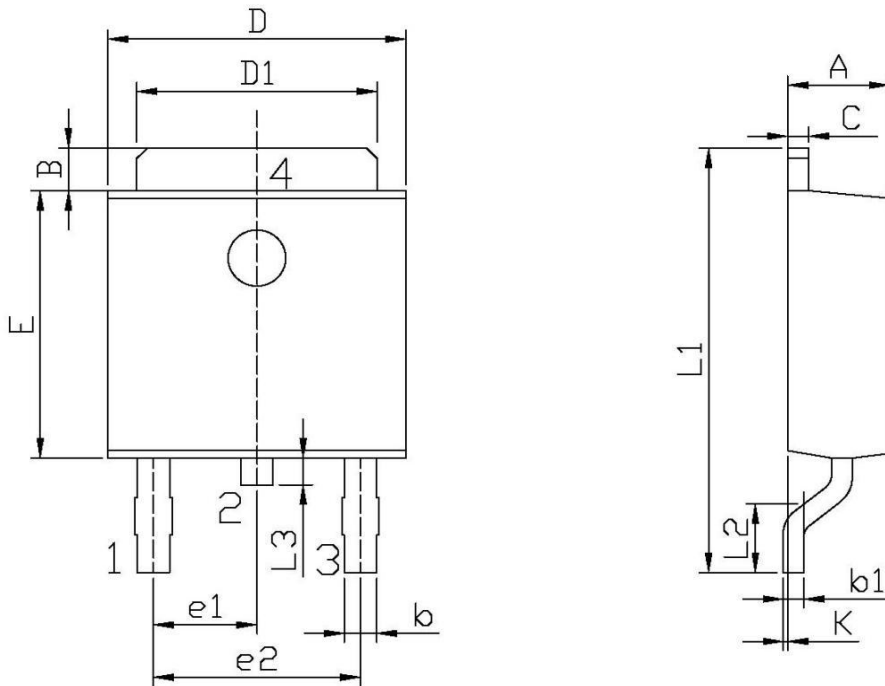
REEL

Package Type	Units					Dimension (unit: mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-252	2,500	2	5,000	5	25,000	13" ×16	360×360×50	385×257×392

TUBE

Package Type	Units					Dimension (unit: mm <sup>3</sup> )		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

Package Dimensions.



单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.34
b	0.50	0.70	e2	4.43	4.73
b1	0.45	0.55	L1	9.45	9.95
C	0.45	0.55	L2	1.25	1.75
D	6.45	6.75	L3	0.60	0.90
D1	5.10	5.50	K	0.00	0.10

TO-252