

/ Descriptions

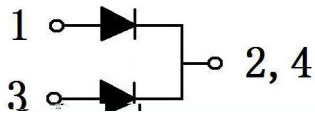
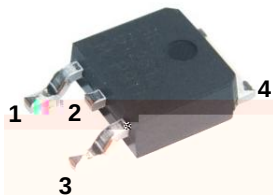
TO-252 Plastic package Schottky diode .

/ Features

Low forward voltage drop,low power losses,High efficiency operation.

/ Applications

For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications.

/ Equivalent Circuit**/ Pinning**

PIN1 Anode

PIN 2 4 Cathode

PIN 3 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

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	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_j T_{stg}	-55~+150	$^\circ\text{C}$

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

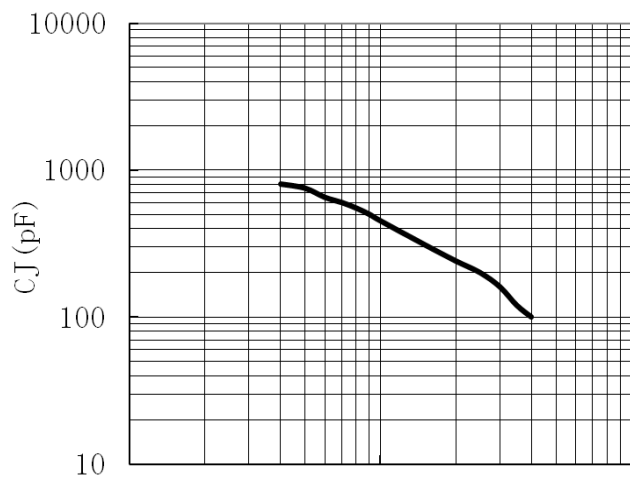
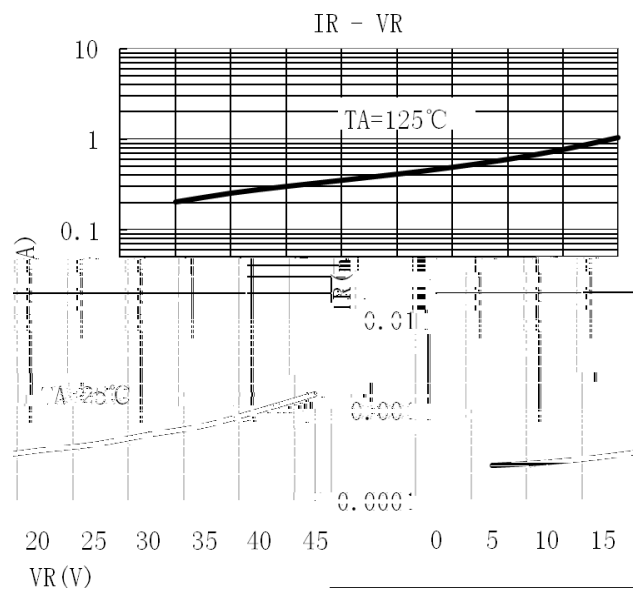
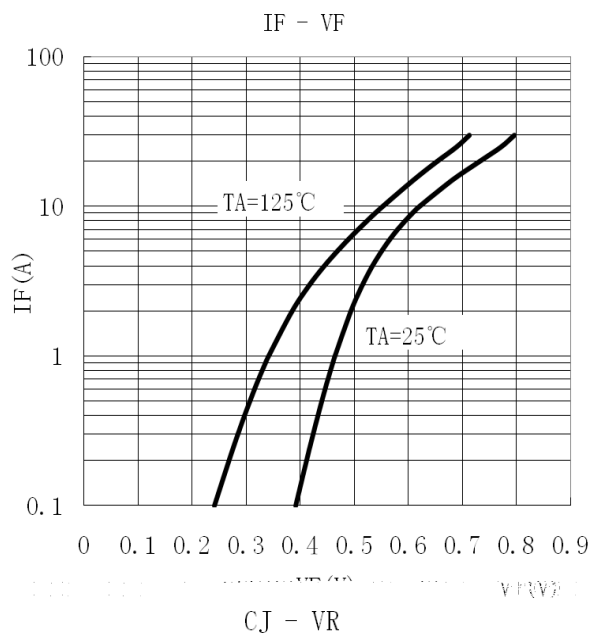
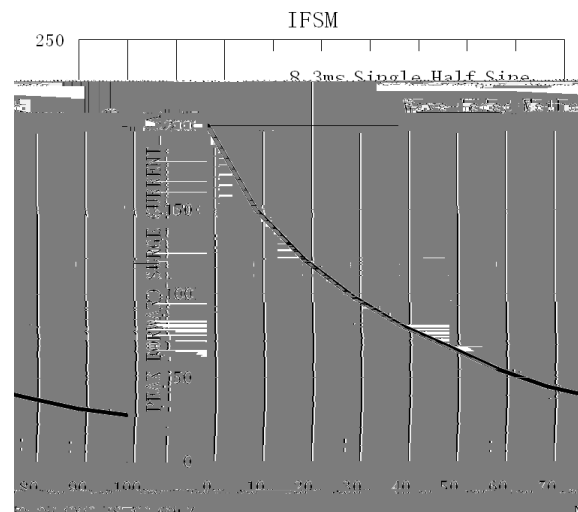
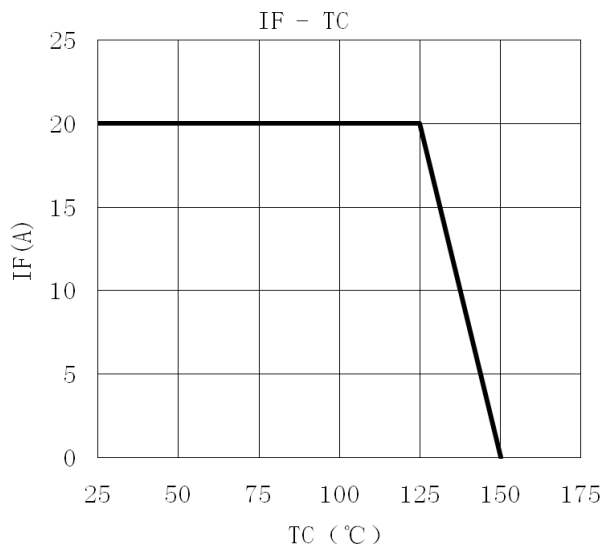
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	$V_{(BR)R}$	$I_R=1\text{mA}$ $T_a=25^\circ\text{C}$	45			V
Peak Forward Voltage	V_{FM}	$I_F=5.0\text{A}$ $T_a=25^\circ\text{C}$			0.60	V
		$I_F=5.0\text{A}$ $T_a=125^\circ\text{C}$			0.50	V
		$I_F=10\text{A}$ $T_a=25^\circ\text{C}$			0.70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

/Notes:

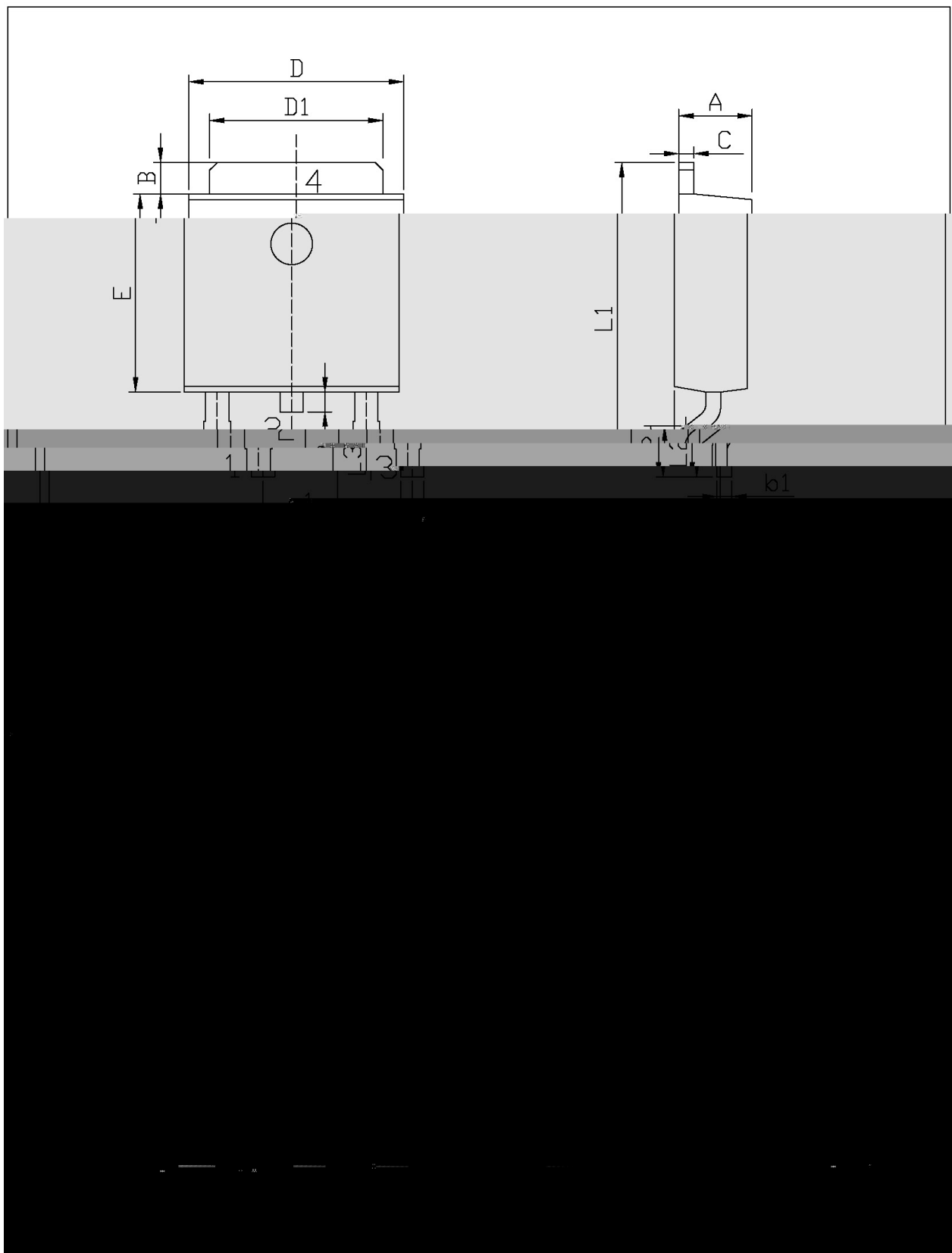
/Short duration pulse test used to minimize self-heating effect.

/ Unless otherwise noted, values for the parameters of a single chip

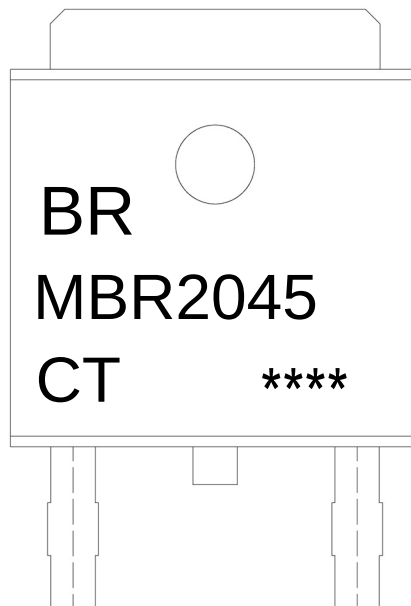
I Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

MBR2045

CT

Note:

BR:

Company Code

MBR2045:

Product Type.

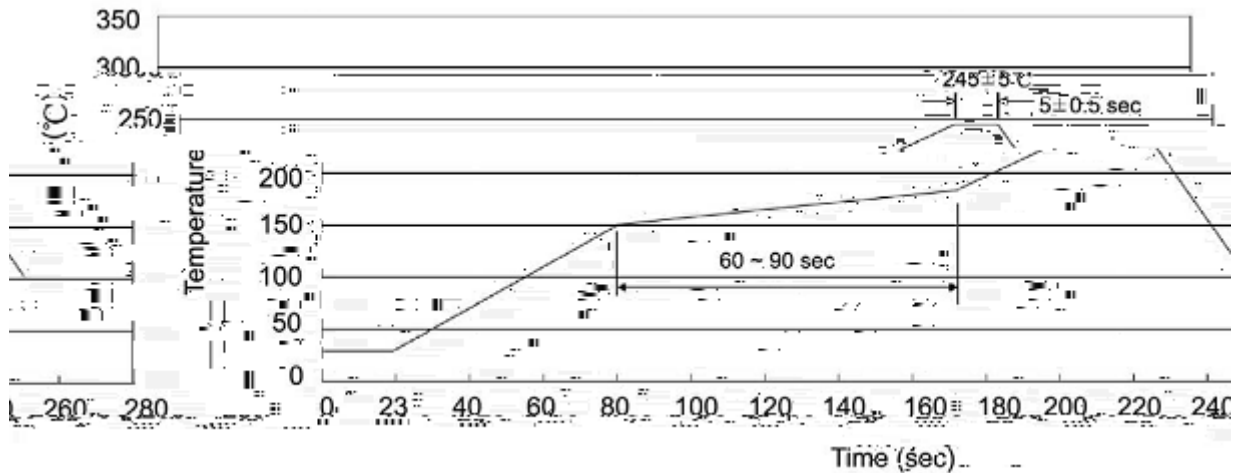
CT:

Internal Structure

****:

Lot No. Code, code change with Lot No.

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-----|-----|----|----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 245 | 5 | 5 | 0.5sec; | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260±5℃ Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-252	2,500	2	5,000	5	25,000	13" ×16	360×360×50	385×257×392

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices