

/ Descriptions

TO-263

Schottky Barrier Diode in a TO-263 Plastic Package.

/ Features

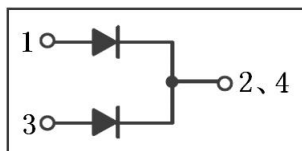
Low forward voltage drop, low power losses, High efficiency operation.

/ Applications

OR-ing

DC-DC

For use in high frequency inverters, switching power supplies, freewheeling diodes, OR-ing diode, dc-to-dc converters and reverse battery protection.

/ 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	2 X 10	A
Non Repetitive Peak Surge Current	I_{FSM}	160	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	2.8	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature Range	T_j T_{stg}	-40~+150	$^\circ\text{C}$

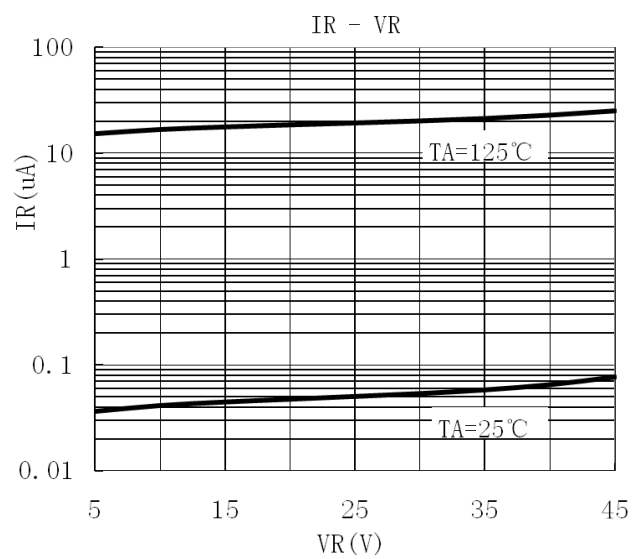
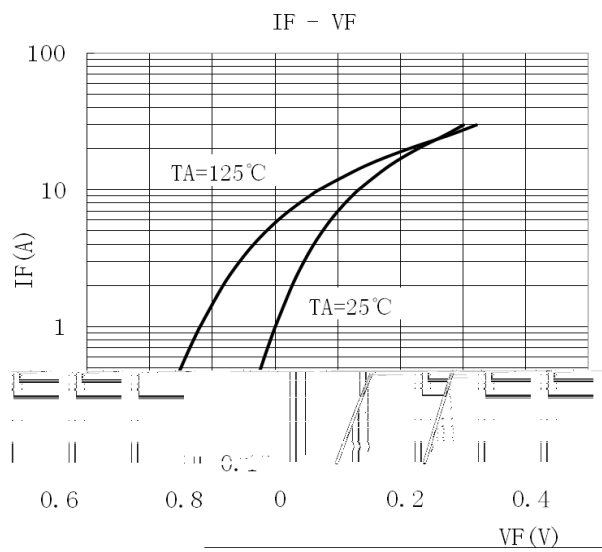
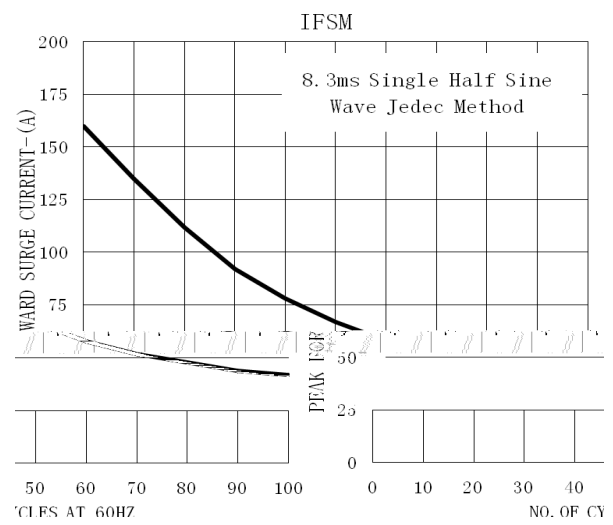
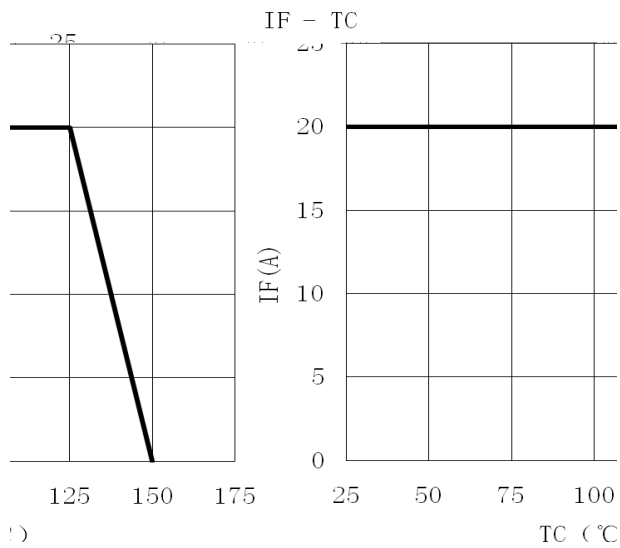
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

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
Forward Voltage	V_{FM}	$I_F=5.0\text{A}$ $T_a=25^\circ\text{C}$		0.38		V
		$I_F=10\text{A}$ $T_a=25^\circ\text{C}$		0.43	0.48	V
		$I_F=5.0\text{A}$ $T_a=125^\circ\text{C}$		0.28		V
		$I_F=10\text{A}$ $T_a=125^\circ\text{C}$		0.37	0.45	V
Instantaneous Reverse Current	I_R Note 1	$V_R=45\text{V}$ $T_a=25^\circ\text{C}$		80	200	μA
		$V_R=45\text{V}$ $T_a=125^\circ\text{C}$		30	100	mA

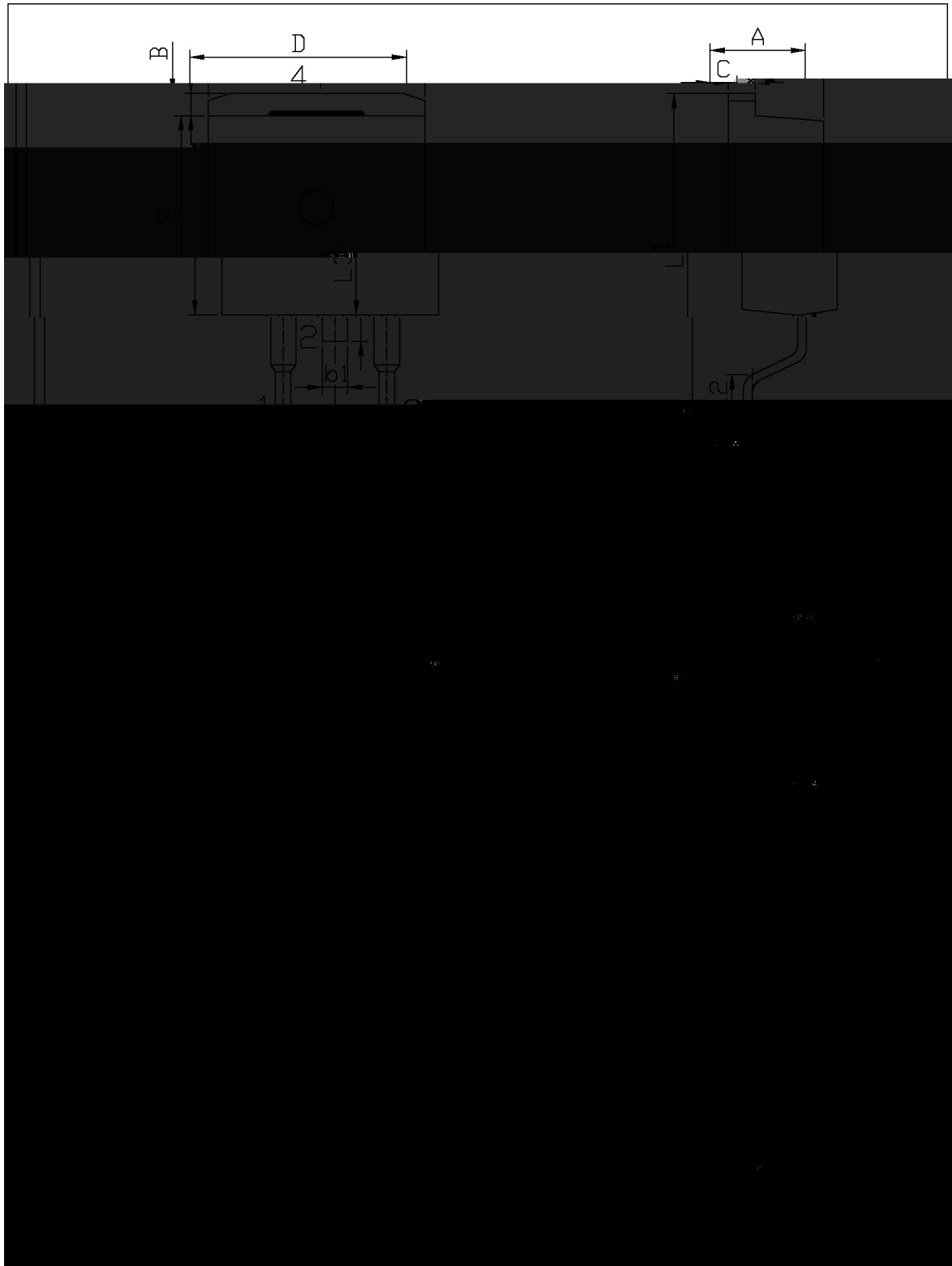
/Notes

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

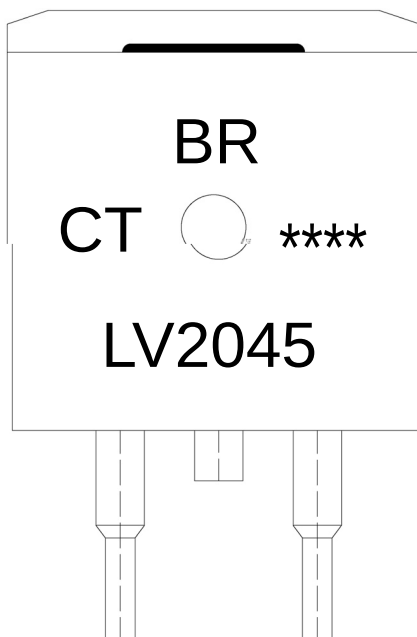
/ **Electrical Characteristic Curve**



/ Package Dimensions



/ Marking Instructions



BR

LV2045

CT:

Note:

BR:

Company Code

LV2045

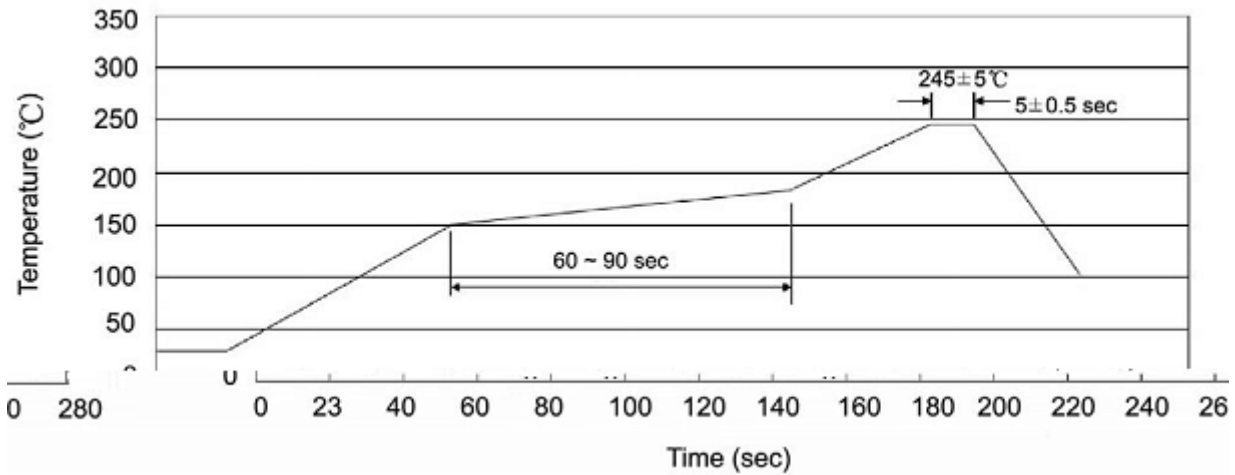
Product Type.

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°C Time:10±1 sec

/ Packaging SPEC.
/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
TO-263	800	1	800	5	4,000	13 ×24	360×360×50	385×257×392

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-263	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

/ Notices