

/ Descriptions

Schottky Barrier Diode in a TO-252 Plastic Package.

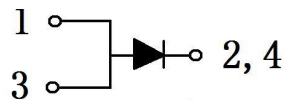
/ Features

High Forward Surge Capability, Ultra Low Forward Voltage Drop $V_F(\text{typ})=0.26\text{V}$, Excellent High Temperature Stability.

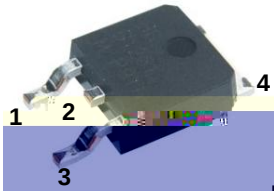
/ Applications

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(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{RM}	45	V
RMS Reverse Voltage	$V_{R(RMS)}$	31.5	V
Average Rectified Current	I_O	5.0	A
Peak Forward Surge Current	I_{FSM}	80	A
Junction Temperature Range	$T_{J\ MAX}$	150	°C
Storage Temperature Range	T_{stg}	-55 150	°C
Typical thermal resistance	$R_{\theta JA}$ Note 1	73	°C/W

/ Electrical Characteristics(Ta=25)

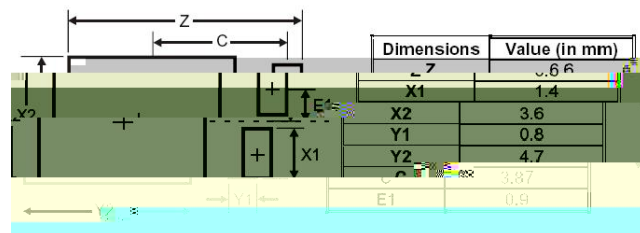
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_{BR}	$I_R=0.5mA$	45			V
Forward Voltage	V_F	$I_F=2A$ $T_J=25^{\circ}C$		0.37	0.42	V
		$I_F=2A$ $T_J=125^{\circ}C$		0.26		V
		$I_F=5A$ $T_J=25^{\circ}C$		0.43	0.48	V
		$I_F=5A$ $T_J=125^{\circ}C$		0.37		V
Instantaneous Reverse Current	I_R Note 2	$V_R=45V$ $T_J=25^{\circ}C$		0.02	0.3	mA
		$V_R=35V$ $T_J=85^{\circ}C$		1.8	10	mA
		$V_R=45V$ $T_J=125^{\circ}C$		15	100	mA

/Notes

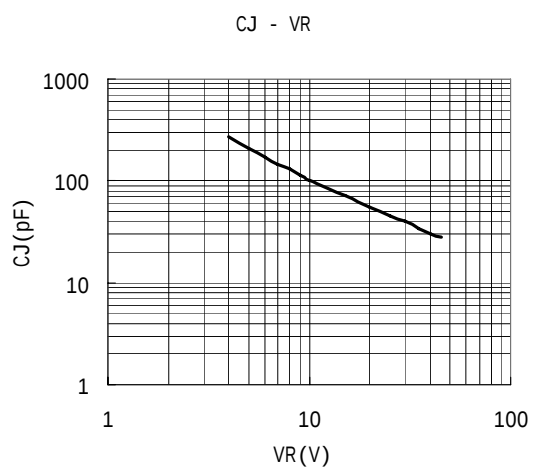
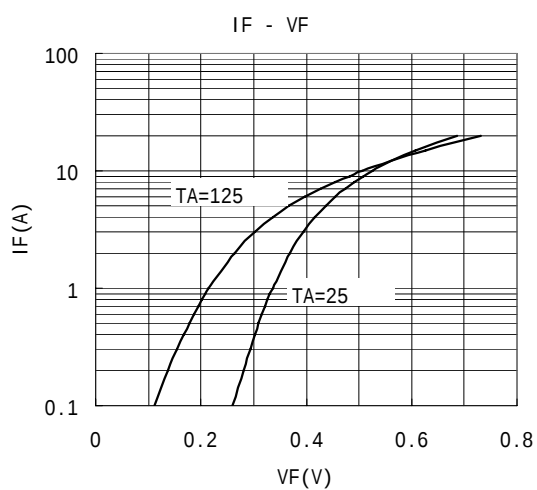
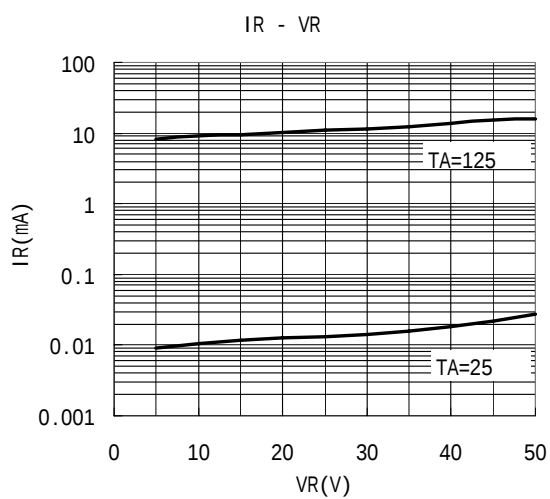
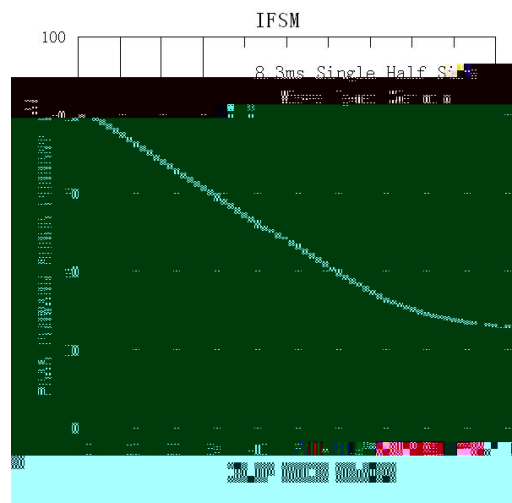
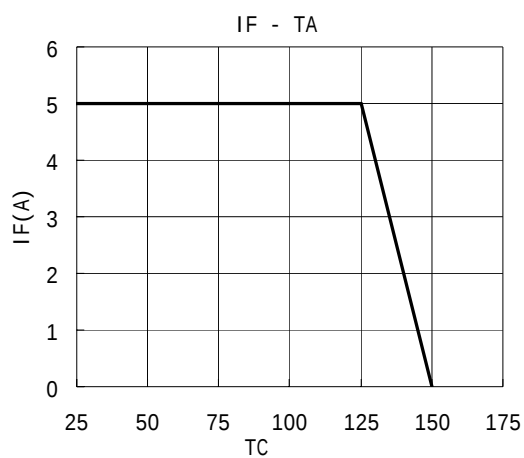
/FR-4 PCB, 2oz. Copper, minimum recommended pad layout per.

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

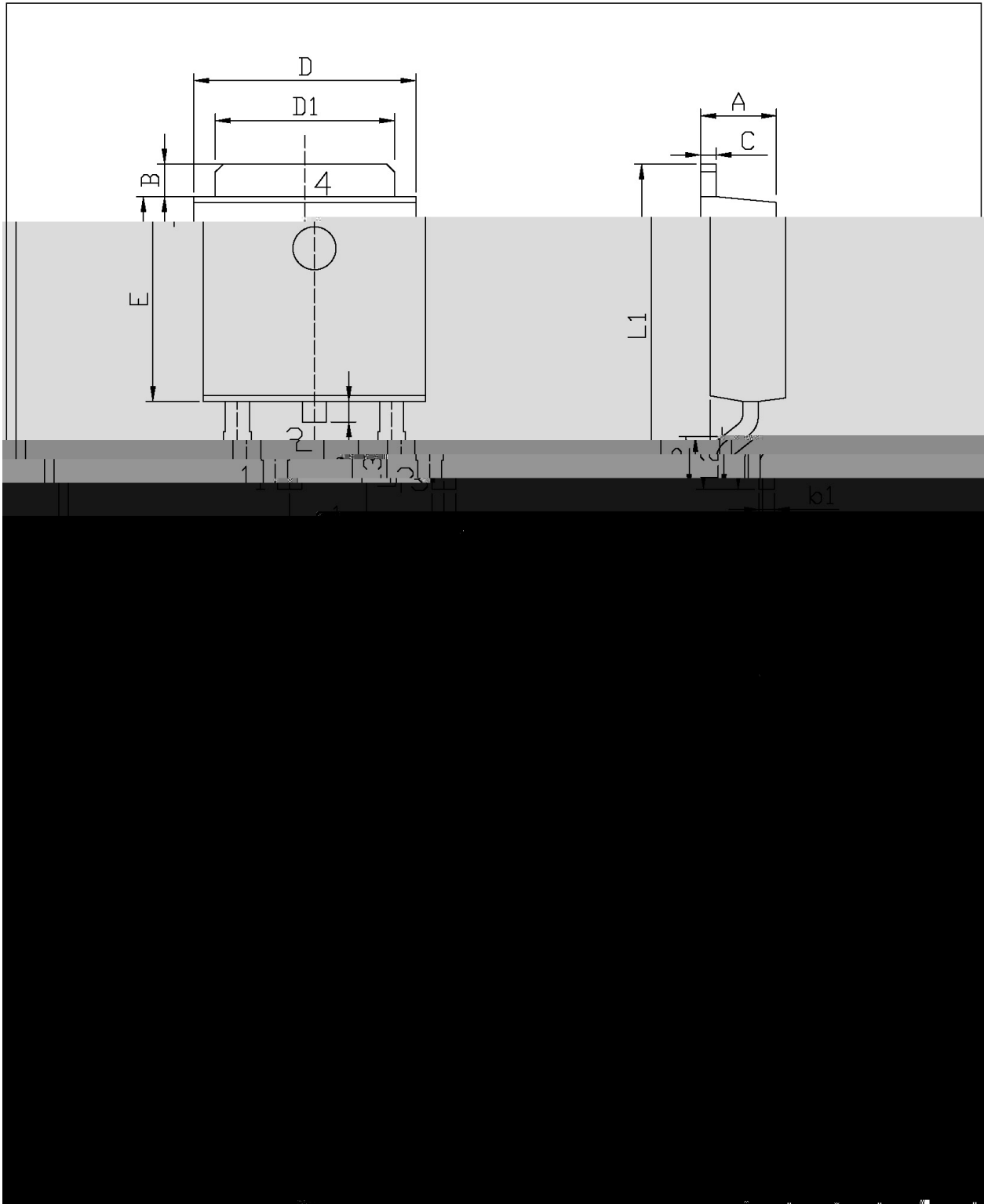
Suggested Pad layout



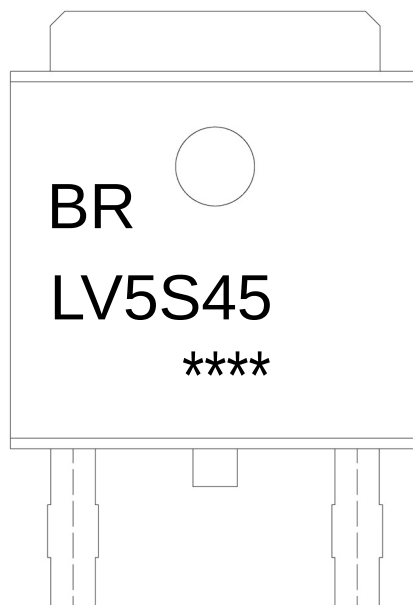
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



Note:

BR:

Company Code

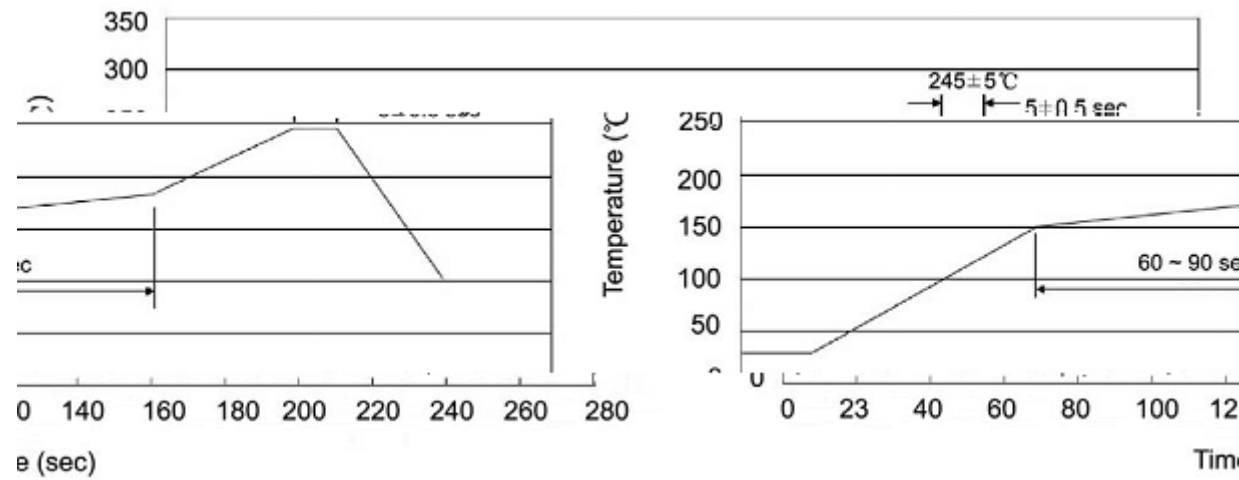
LV5S45

Product Type.

****:

Lot No. Code, code change with Lot No.

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Note:

1. Preheating: 25~150 , Time: 60~90sec;
2. Peak Temp.: 245±5 , Duration: 5±0.5sec.
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 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