

/ Descriptions

Schottky Barrier Diode in a TO-252 Plastic Package.

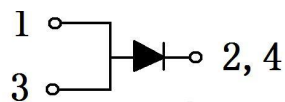
/ Features

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

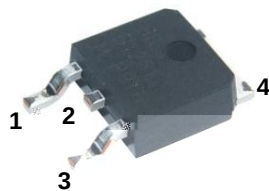
/ Applications

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)

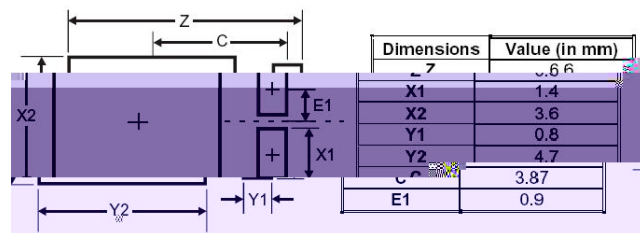
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_{BR}	$I_R=0.5mA$	45			V
Forward Voltage	V_F	$I_F=2A$ $T_J=25^{\circ}C$		0.37	0.42	V
		$I_F=2A$ $T_J=125^{\circ}C$		0.26		V
		$I_F=5A$ $T_J=25^{\circ}C$		0.43	0.48	V
		$I_F=5A$ $T_J=125^{\circ}C$		0.37		V
Instantaneous Reverse Current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

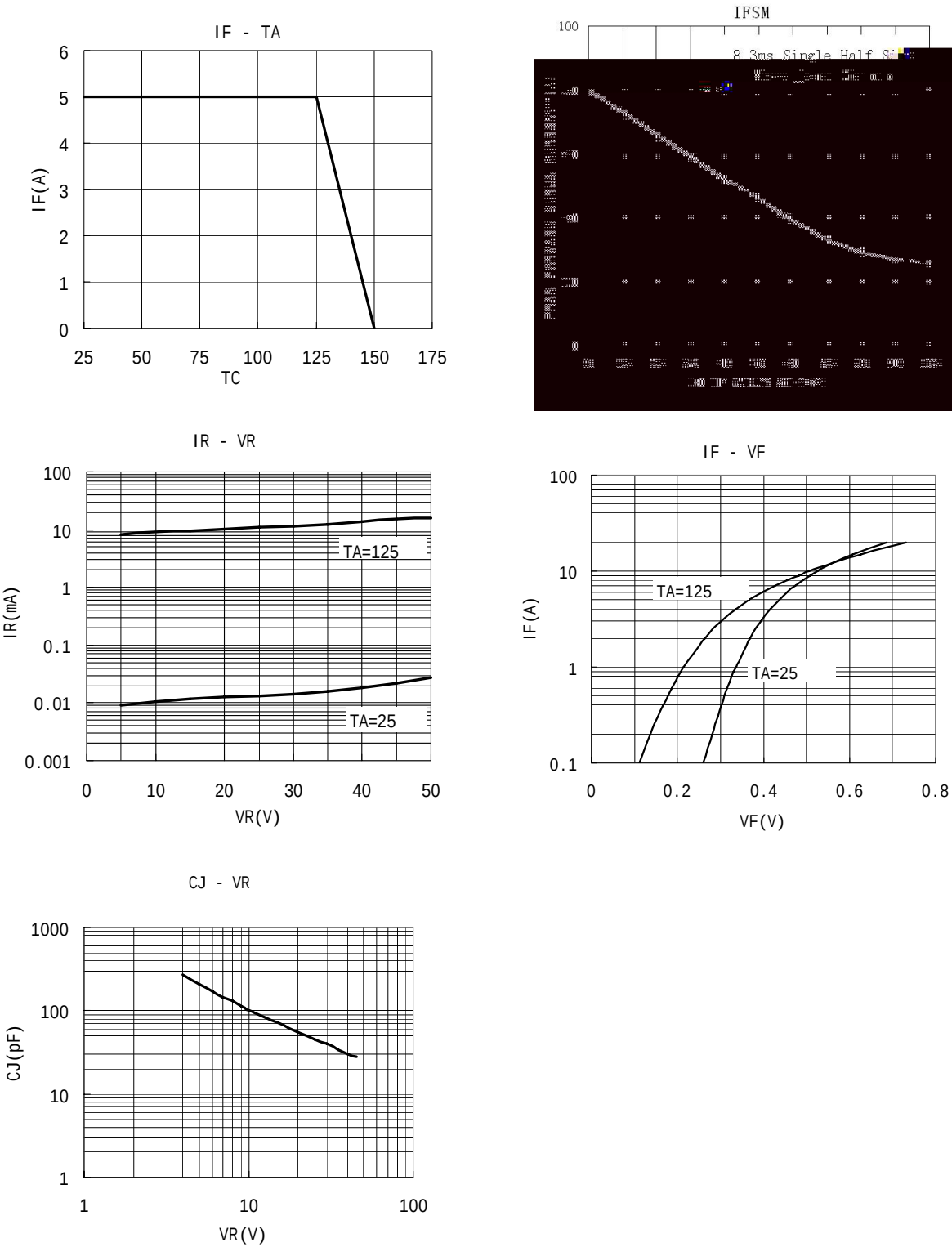
/FR-4 PCB, 2oz. Copper, minimum recommended pad layout per.

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

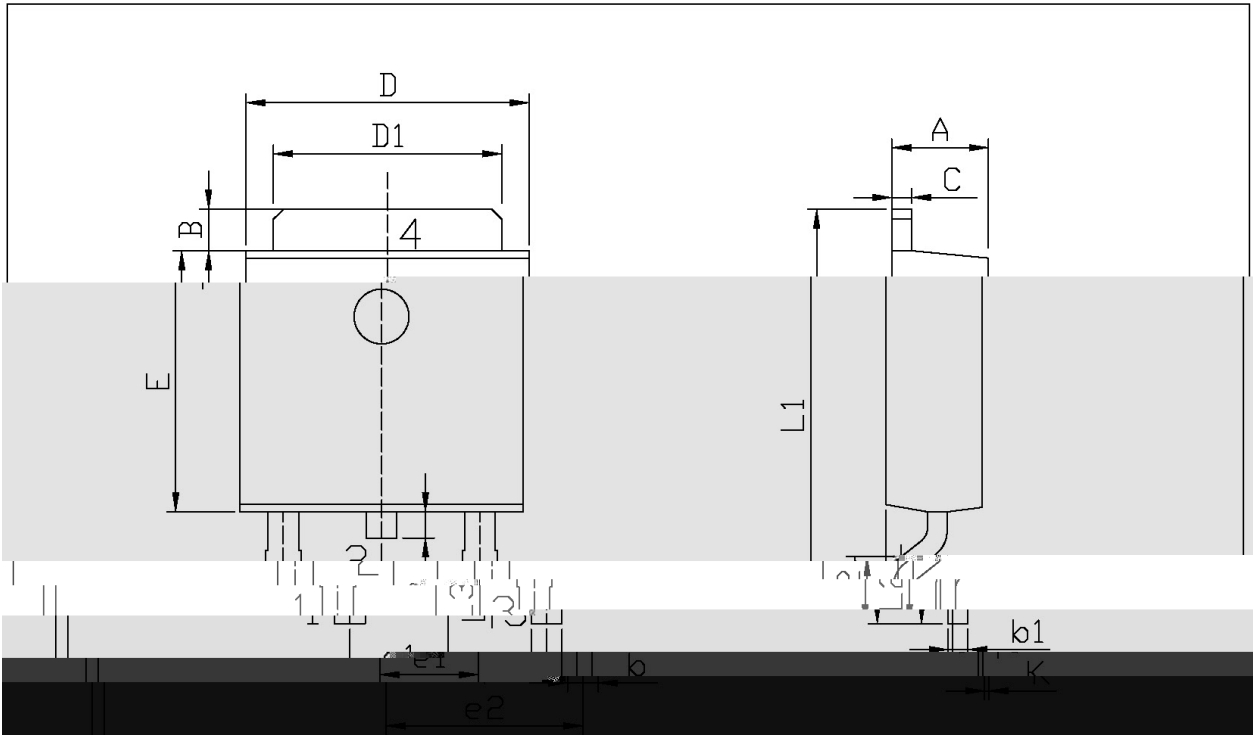
Suggested Pad layout



/ Electrical Characteristic Curve



/ Package Dimensions

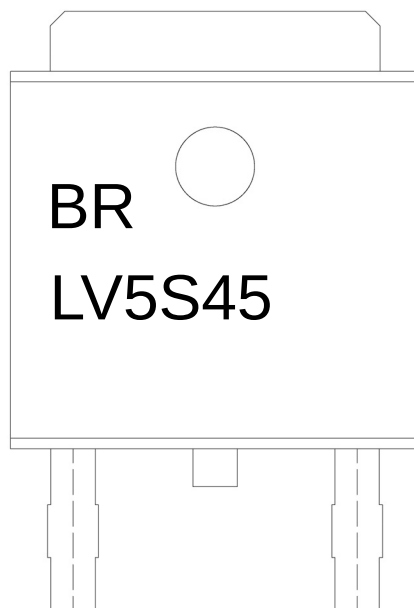


单位: mm

Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.54
b	0.50	0.70	e2	4.43	4.63
b1	0.45	0.55	L1	0.45	0.55
C	0.45	0.55	L2	1.25	1.45
D	6.45	6.75	L3	0.60	0.70
D1	5.10	5.50	K	0.00	0.10

T0-252

/ Marking Instructions



Note:

BR:

Company Code

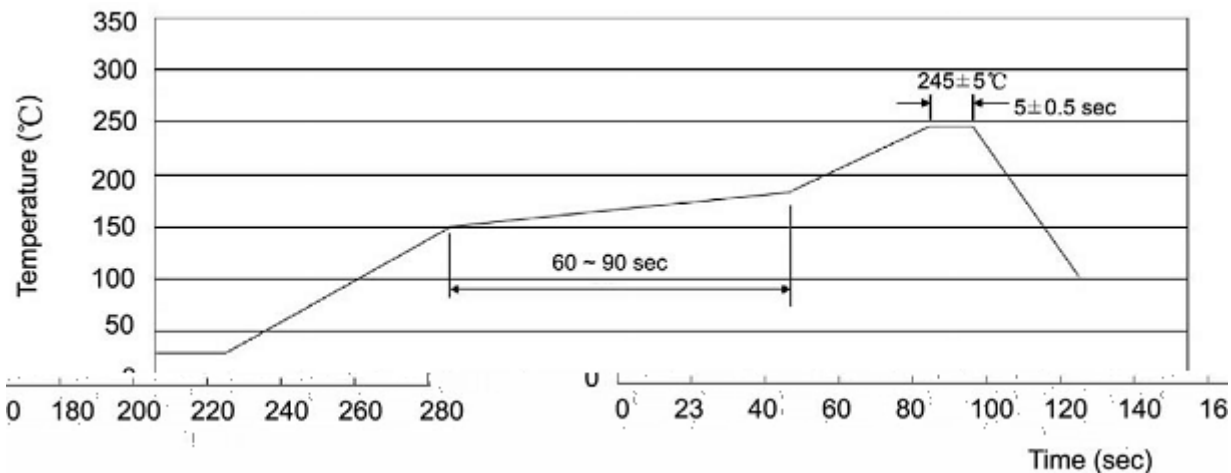
LV5S45

Product Type.

***:

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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 套管	套管 盒	只 盒	盒 箱	只 箱	套管	盒	箱

/ Notices