

/ Descriptions

Schottky Barrier Diode in a R-6 Plastic Package.

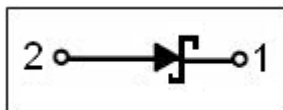
/ Features

Trench MOS Schottky technology, Low forward voltage drop, low power losses, High efficiency operation, T_J 200 °C max. in solar bypass mode application, ESD ability to achieve $\pm 30KV$.

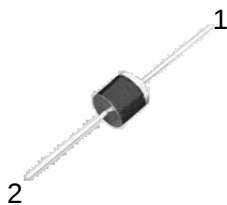
/ Applications

For use in solar cell junction box as a bypass diode for protection, high frequency inverters, switching power supplies, freewheeling diodes, OR-ing diode, dc-to-dc converters and reverse battery protection.

/ Equivalent Circuit



/ Pinning



PIN1 Cathode PIN 2 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	31.5	V
Maximum Average forward current	$I_{F(AV)}$	15	A
Non Repetitive Peak Surge Current	I_{FSM}	240	A
Thermal Resistance Junction to Case ⁽¹⁾	R_{Jc}	3.5	/W
Operating junction and storage temperature range (AC mode)	T_j T_{stg}	-55 +200	
Junction temperature in DC forward current without reverse bias, t 1 h	T_j max. ⁽²⁾	200	

Notes

- 1 Measured at 1.0 MHZ and applied reverse voltage of 4.0VDC.
- 2 2 bypass diode thermal test DC forward current without reverse bias

/ Electrical Characteristics(Ta=25)

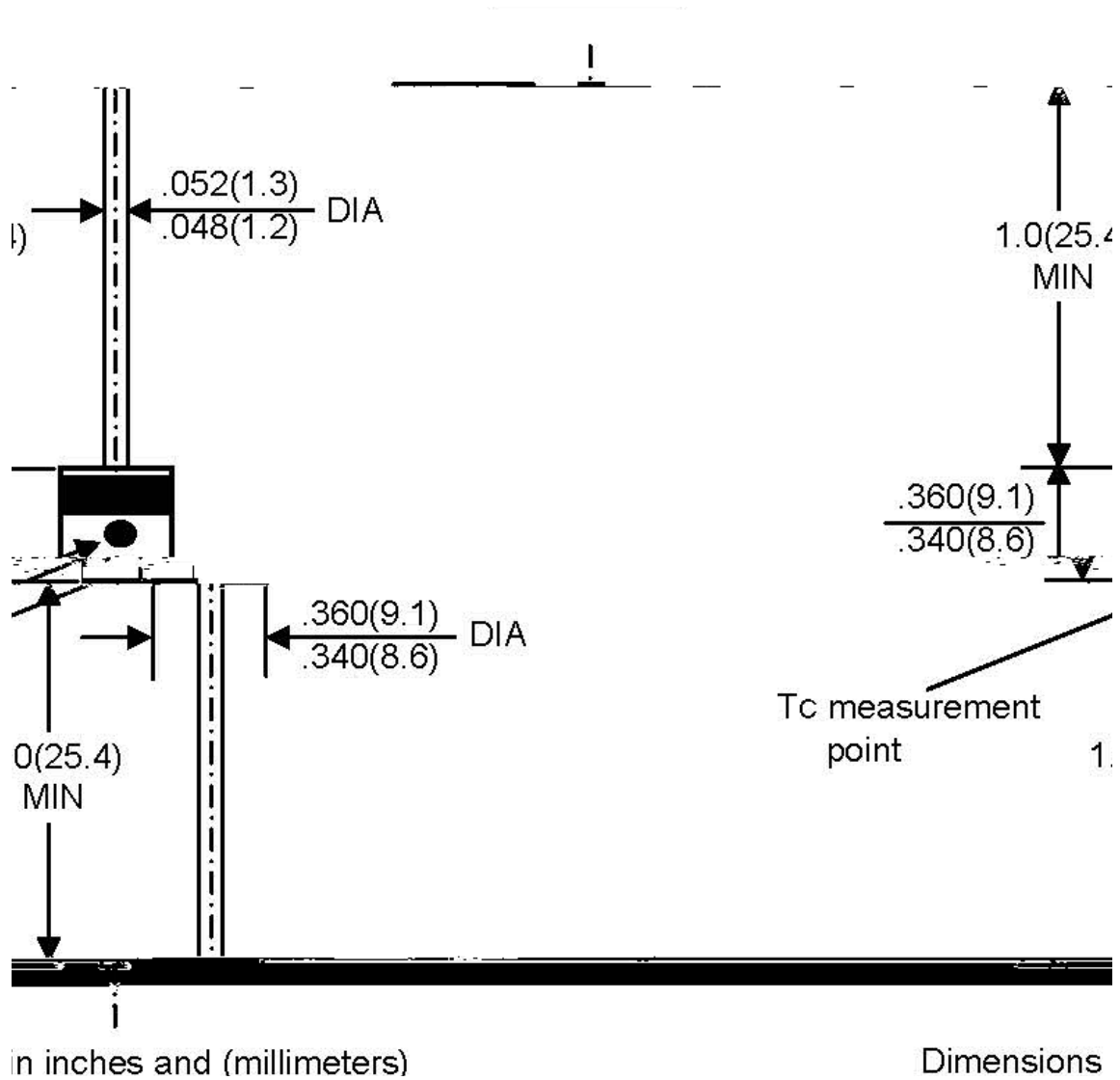
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown voltage	V_{BR}	$I_R=1mA$ (TA=25°C)	45			V
Forward Voltage	V_F Note 1	$I_F=5A$ (TA =25)		0.43		V
		$I_F=15A$ (TA =25)		0.53	0.55	V
		$I_F=5A$ (TA =125)		0.33		V
		$I_F=15A$ (TA =125)		0.48		V
Instantaneous Reverse Current	I_R Note 2	$V_R=45V$ (TA =25)		4	20	uA
		$V_R=45V$ (TA =125)		4.5	10	mA

Notes

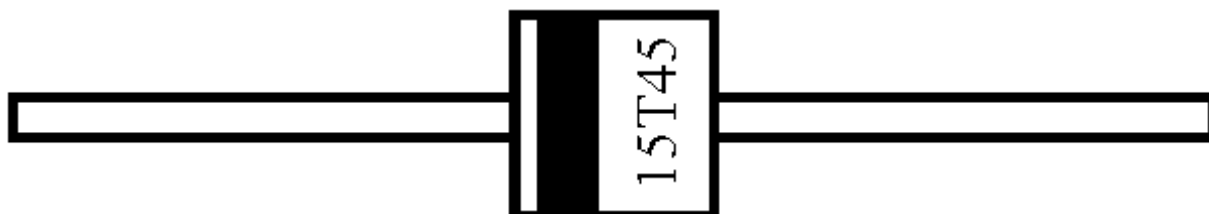
- (1) Pulse test: 300 s pulse width, 2 % duty cycle
- (2) Pulse test: Pulse width 40 ms
- (3) Unless otherwise noted, values for the parameters of a single chip

/ Package Dimensions

R-6



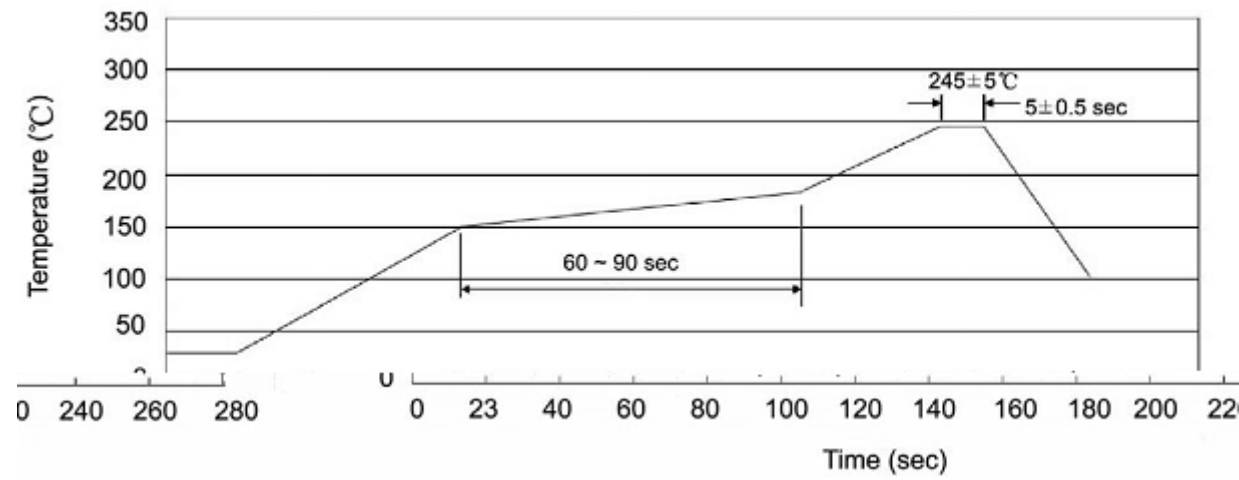
/ Marking Instructions



Note:

Product Type Code.

() /



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.

/ BULK

Package Type 封装形式	Units 包装数量			Dimension 包装尺寸 (unit: mm ³)	
	只 袋	只 箱	Gross Weight/Kg 总重/千克	盒	箱
R-6					

/ AMMO

Package Type 封装形式	Units 包装数量			Dimension 包装尺寸 (unit: mm ³)			
	只 纸带	只 箱	Gross Weight/Kg 总重/千克	带宽	编带长	盒	箱

/ Notices