



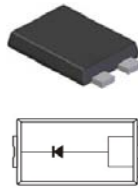
# SB1045L LOW VF SCHOTTKY BARRIER RECTIFIER

## FEATURES

- Ideal for Automated Placement
- Very low profile-typical high of 1.2mm
- Low Power Losses,High Efficiency Operation
- Guardring for overvoltage protection
- Low Thermal Resistance Package
- High Operating Junction Tempera
- Plastic Case Material has UL Flammability Classification Rating 94V-O

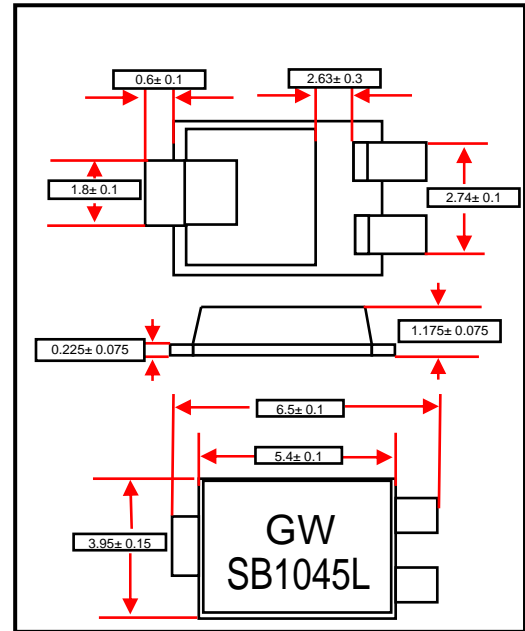
## MECHANICAL DATA

- Case: TO-277M molded Plastic
- Terminals:Solderable per MIL-STD-750,Method 2026
- Polarity:
- Weight:0.090 grams(approx)
- Lead Free:For RoHS/Lead Free Version, Green molding compound as per IEC61249 Std



## TO-277

Unit:inch(mm)



## Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	VALUE	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	45	V
Maximum RMS voltage	V <sub>RMS</sub>	32	V
Maximum DC blocking voltage	V <sub>R</sub>	45	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	10	A
Peak forward surge current:8.3ms single half sine-wave superimposed on rated load	I <sub>Fsm</sub>	200	A
PARAMETER	Symbol	TEST CONDITIONS	MIN. TYP. MAX. Unit
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =0.5mA T <sub>A</sub> =25°C	45 - - V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =3A T <sub>A</sub> =25°C	- - - V
		I <sub>F</sub> =5A T <sub>A</sub> =25°C	- 0.45 - V
		I <sub>F</sub> =10A T <sub>A</sub> =25°C	- 0.48 0.52 V
		I <sub>F</sub> =3A T <sub>A</sub> =125°C	- 0.35 - V
Reverse current	I <sub>R</sub>	VR=36V T <sub>A</sub> =25°C	- 35 - uA
		VR=45V T <sub>A</sub> =25°C	- 0.15 0.5 mA
		VR=45V T <sub>A</sub> =125°C	- 32 - mA
Typical Thermal Resistance(Note1)	R <sub>θ JL</sub>	4	°C/W
	R <sub>θ JA</sub>	60	
Operating temperature range	T <sub>J</sub>	-40 to + 150	°C
Storage temperature range	T <sub>STG</sub>	-40 to + 150	°C

**Note:** (1)Mounted on 30mm X 30mm pad areas aluminum PCB  
(2)Free air,mounted on recommended copper pad area

(3).Pulse test:300us pulse width,1% duty cycle  
(4).Pulse test:Pulse width ≅ 40ms



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SCHOTTKY BARRIER RECTIFIER

RATING AND CHARACTERISTIC CUEVES

