

# FrelTec

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## Surface Mount Schottky Rectifier TO-277

## TO-277

## Surface Mount Schottky Rectifier

## SPECIFICATION

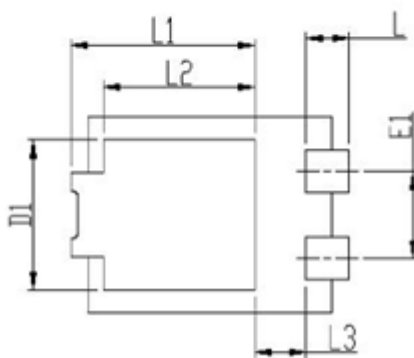
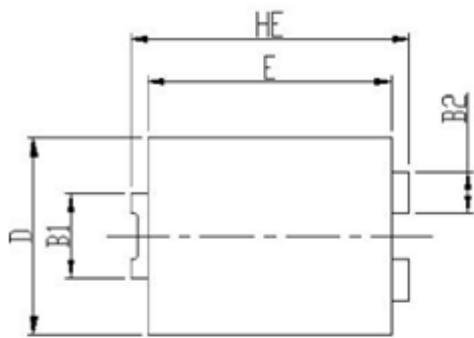
68B		SGC151B2Sx		T277		L05
Type		Type		Package		Packing
68B: Surface Mount Schottky Rectifier		SGC151B2S		TO-277 eSGC		L05: tape in Embossed tape and reel for 5000 pc (13" REEL)

**All products according to RoHS (2015/863/EU)**

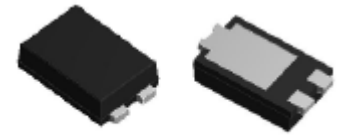
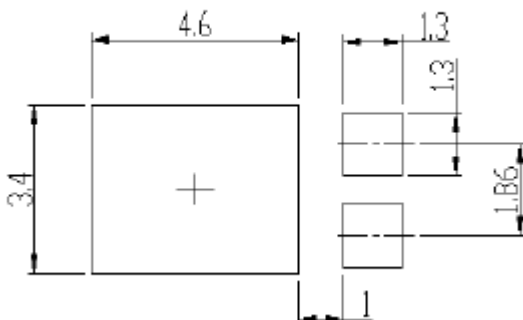
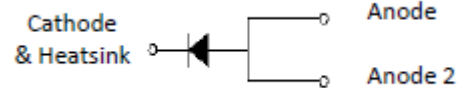
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## TO-277

## PACKAGE OUTLINE



Soldering footprint

TO-277  
eSGC

	Min	Max
HE	6,4	6,6
E	5,6	5,8
D	4,1	4,3
B1	1,7	1,9
B2	0,8	1
A	1,05	1,2
C	0,3	0,4
L	0,85	1,1
L1	4,2	4,4
L2	3,52 Typ.	
L3	1,1	1,4
D1	3	3,3
E1	1,86 Typ.	

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## Maximum Ratings &amp; Characteristics

TA = 25°C unless otherwise noted

Parameter	Symbol	SGC151B2S	Unit
Maximum repetitive peak reverse	VRRM	120	V
Maximum RMS voltage	VRMS	84	V
Maximum DC blocking voltage	VDC	120	V
Maximum average forward rectified current	IF(AV)	7,5 <sup>1)</sup>	A
		15,0 <sup>2)</sup>	
Peak forward surge current 8,3ms single half sine-wave superimposed on rated load	IFSM	250	A
Operating junction and storage temperature range	TJ, TSTG	-55 to +150	°C

## Electrical Characteristics

TA = 25°C unless otherwise noted

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	I <sub>F</sub> =1A	T <sub>A</sub> =25°C	V <sub>F</sub>	0,37	0,42	Volts
	I <sub>F</sub> =2A			0,407	0,45	
	I <sub>F</sub> =5A			0,48	0,55	
	I <sub>F</sub> =15A			0,66	0,75	
	I <sub>F</sub> =1A	T <sub>A</sub> =125°C		0.25	-	
	I <sub>F</sub> =2A			0,30	-	
	I <sub>F</sub> =5A			0,42	-	
	I <sub>F</sub> =15A			0,56	-	
Instantaneous reverse current	Rated VR	T <sub>A</sub> =25°C	I <sub>R</sub>	0,019	0,2	mA
		T <sub>A</sub> =125°C		16,8	30	
Typical junction capacitance	4,0 V, 1 MHz		C <sub>J</sub>	1576		pF
Typical thermal resistance	juntion to ambient		R <sub>θJA</sub> <sup>1)</sup>	33		°C / W
	juntion to lead		R <sub>θJL</sub> <sup>2)</sup>	19		

Note1) Mounted on FR-4 P.C.B with 30\*30mm copper pad area

2) On aluminum substrate PCB with recommended copper pad area

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## Ratings and Characteristics Curves

TA = 25°C unless otherwise noted

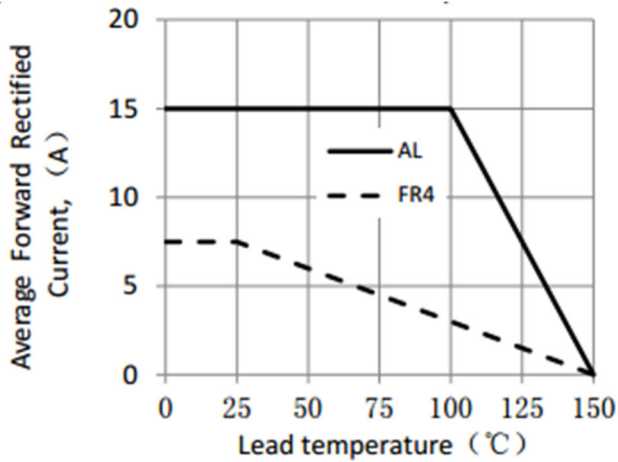


Figure 1. Forward Current Derating Curve

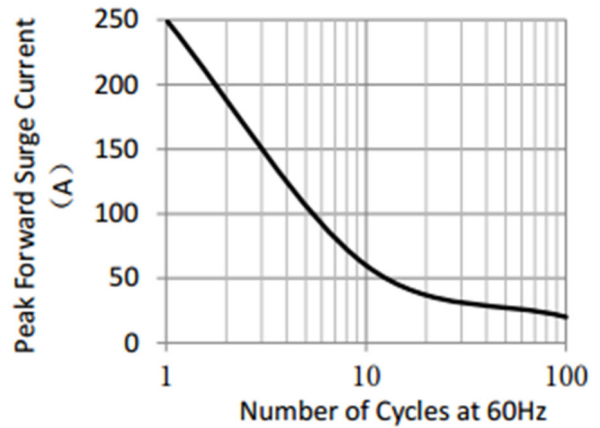


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

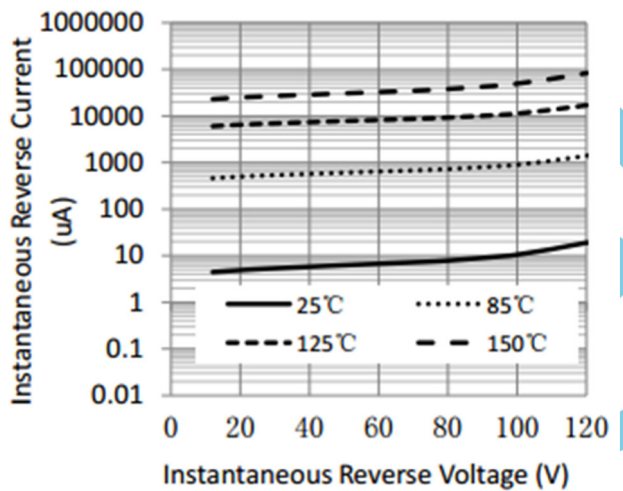


Figure 3. Typical Reverse Characteristics

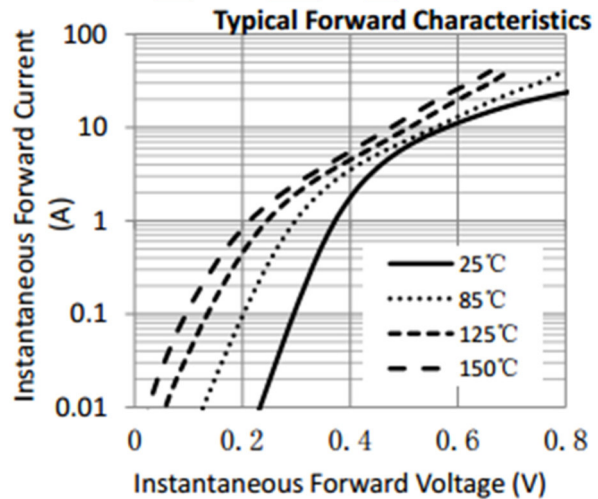


Figure 4. Typical Instantaneous Forward Characteristics

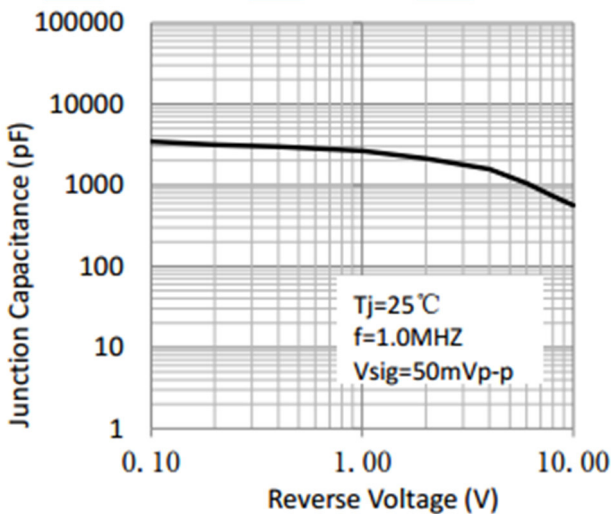
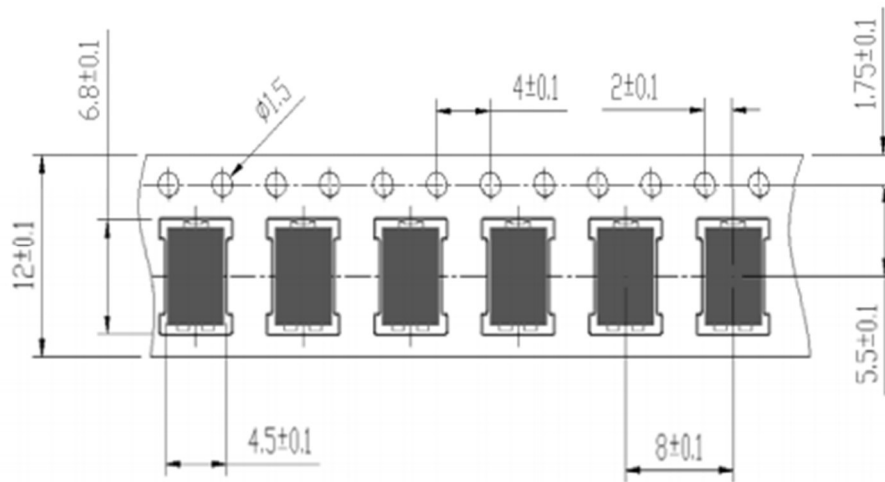


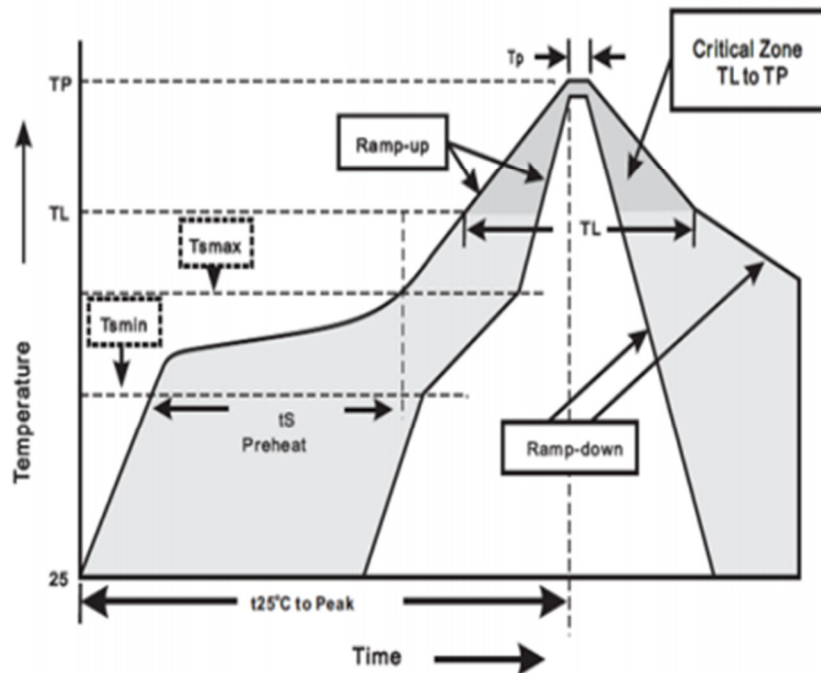
Figure 5. Typical Junction Capacitance

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## SPECIFICATION

***Tape And Reel Package***

**Soldering Parameters****Stock period**

The performance of these products, including the solderability, is guaranteed for 12 month, provided that they remain packed as they were when delivered and stored at a temperature of 20-30°C and a relative humidity 20-60%RH

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