

FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

Surface Mount Standard Rectifier TO-277

TO-277

SPECIFICATION

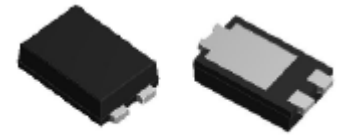
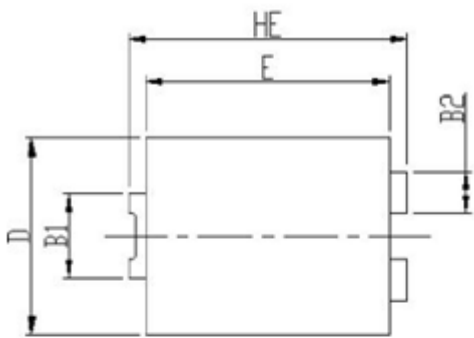
68B	SGC030_AUx	T277	L05
Type	Type	Package	Packing
68B: Surface Mount Standard Rectifier	SGC030_AU	TO-277 eSGC	L05: tape in Embossed tape and reel for 5000 pc (13" REEL)

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

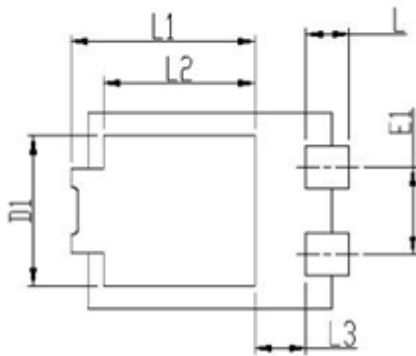
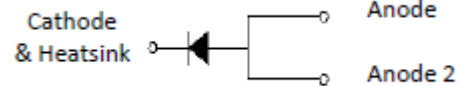


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PACKAGE OUTLINE

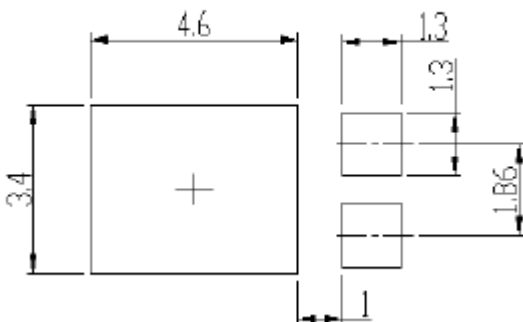


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eSGC



	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.	

Soldering footprint



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Surface Mount Standard Rectifier

Maximum Ratings & Characteristics

TA = 25°C unless otherwise noted

Parameter	Symbol	SGC0301 AU	SGC0302 AU	SGC0303 AU	SGC0304 AU	SGC0305 AU	SGC0306 AU	SGC0307 AU	Unit
Maximum repetitive peak reverse	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV) ¹⁾	3,0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	125							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	SGC0301 A	SGC0302 A	SGC0303 A	SGC0304 A	SGC0305 A	SGC0306 A	SGC0307 A	Unit
Maximum repetitive peak reverse	IF=3 A ,TA=25°C	VF	0,98							V
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	10							uA
	TA=125°C		250							
Typical reverse recovery time	IF=0.5A,IR=1.0A,	trr	3							uS
	Irr=0.25A									
Typical junction capacitance	4.0 V, 1 MHz	CJ	25							pF
Typical thermal resistance ¹⁾	junction to mount	R _{θJM}	5							°C /W
	junction to ambient	R _{θJA}	35							

Note:1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 30x30mm copper pads.

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Ratings and Characteristics Curves

TA = 25°C unless otherwise noted

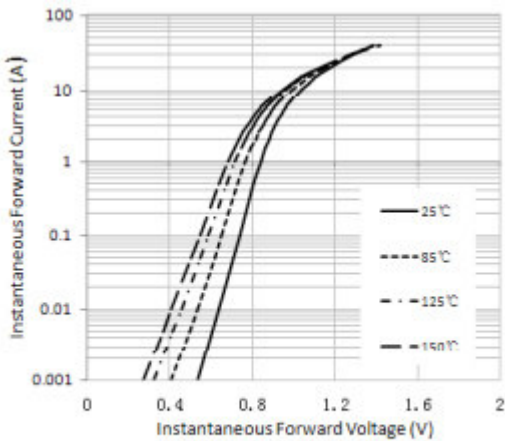


Figure 1. Typical Instantaneous Forward Characteristics

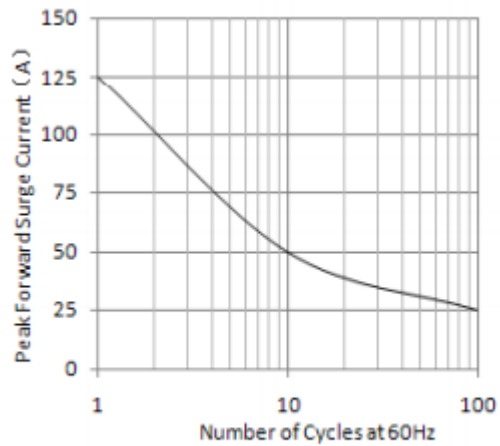


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

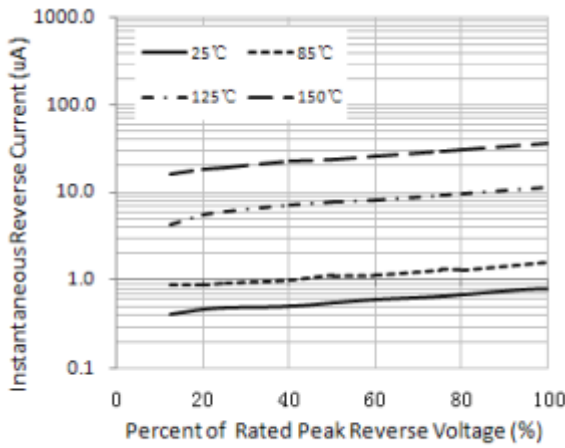


Figure 3. Typical Reverse Characteristics

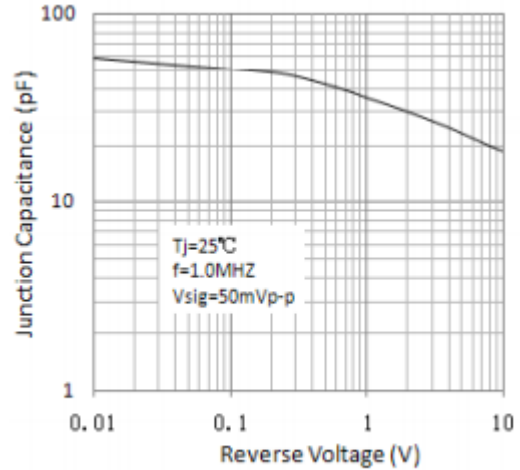


Figure 4. Typical Junction Capacitance

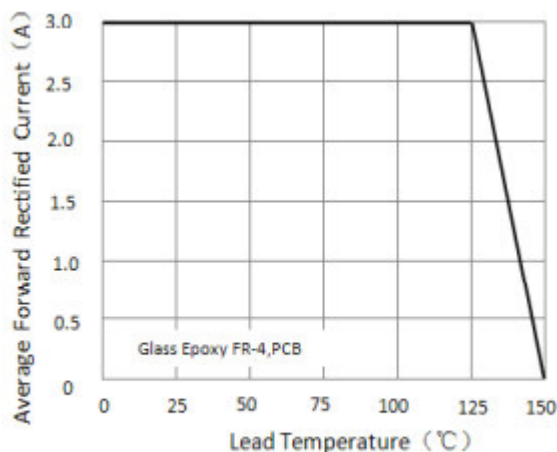
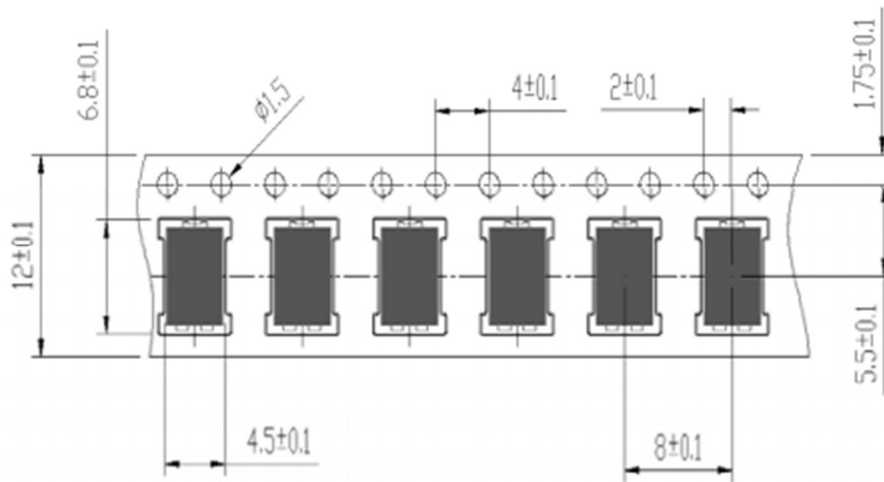


Figure 5. Forward Current Derating Curve

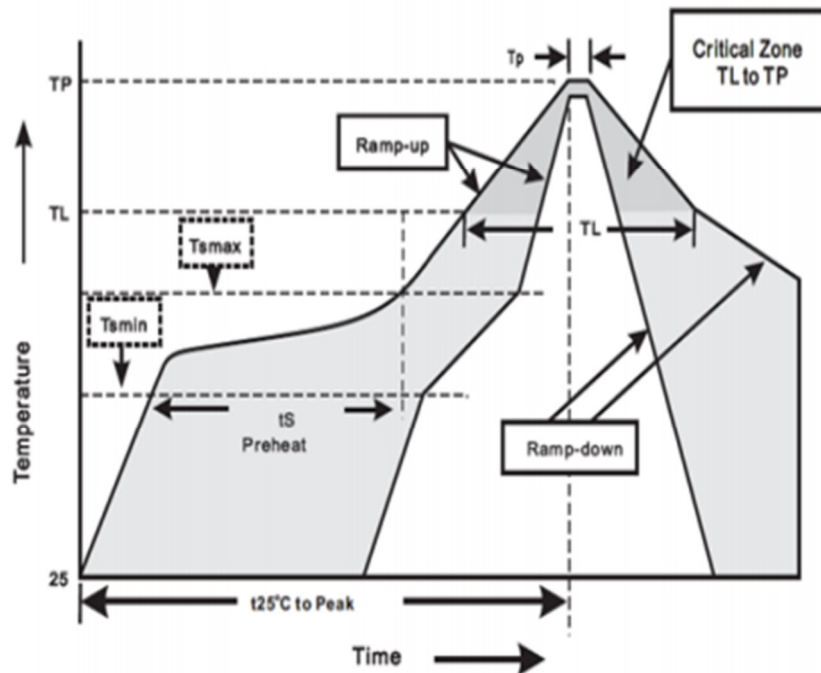
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SPECIFICATION

Tape And Reel Package



FrelTec

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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