FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

Super Fast Surface Mount Rectifier
TO-277

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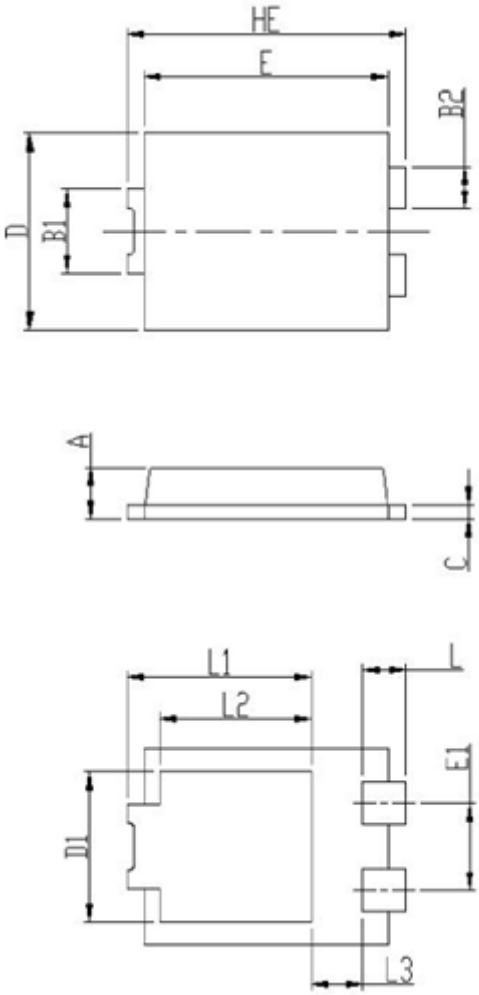
Super Fast Surface Mount Rectifier

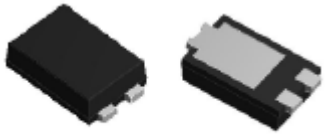
SPECIFICATION

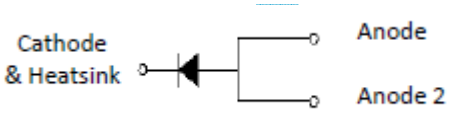
62B		SGC050_Uxx		T277		L05
Type		Type		Package		Packing
62B: Surface Mount Schottky Rectifier		SGC050_U		TO-277 eSGC		L05: tape in Embossed tape and reel for 5000 pc (13” REEL)

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

PACKAGE OUTLINE







	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 & Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	SGC0503U	SGC0504U	SGC0505U	SGC0506U	Unit
Maximum repetitive peak reverse voltage	VRRM	200	400	600	800	V
Maximum RMS voltage	VRMS	140	280	420	560	V
Maximum DC blocking voltage	VDC	200	400	600	800	V
Maximum average forward rectified current	IF(AV)[1]	5,0				A
	IF(AV)[2]	3,0				
Peak forward surge current 8,3 ms single half sine-wave superimposed on rated load	IFSM	150				A
Operating junction and storage temperature range	TJ,TSTG	-55 to +150				°C

Parameter	Test Conditions	Symbols	SGC0503U	SGC0504U	SGC0505U	SGC0506U	Unit
Maximum instantaneous forward voltage	5A	VF	0,95	1,3	1,7		Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	10				uA
	TA=125°C		500				
Maximum reverse recovery time	I_F=0,5, I_R=1,0A, I_{rr}=0,25A	t_{rr}	35				nS
Typical junction capacitance	4,0V, 1 MH_Z	CJ	22				pF
Typical thermal resistance	junction to mount	$R_{\Theta jm}$[1]	15				°C /W
	junction to ambient	$R_{\theta JA}$[2]	40				

Notes: 1). Thermal resistance $R_{\theta JM}$ is junction to mount, Free air, mounted on P.C.B with recommended copper pad area

2).Thermal resistance $R_{\theta JA}$ is junction to ambient. Mounted on P.C.B with 30x30mm copper pad area

Characteristics(Typical)

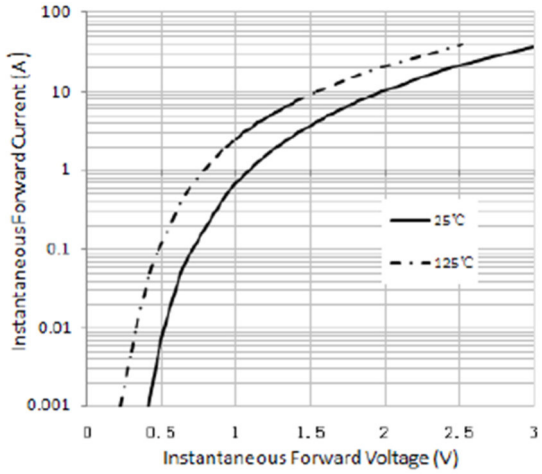

Figure 1. Typical Instantaneous Forward Characteristics

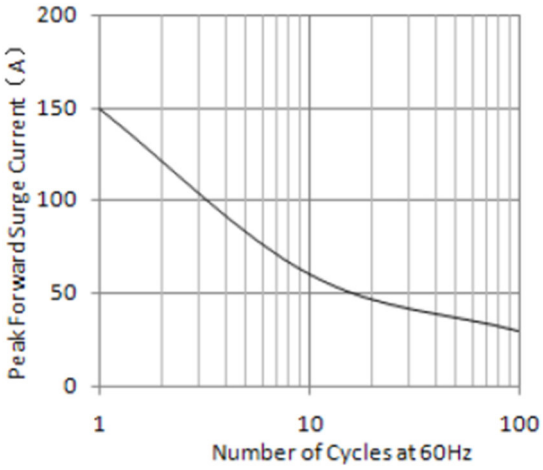

Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

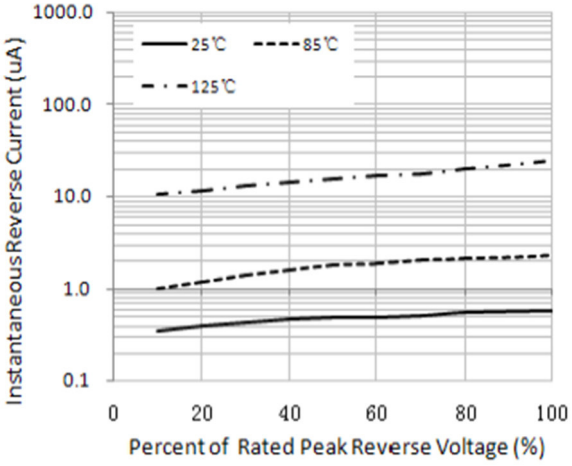

Figure 3. Typical Instantaneous Reverse Characteristics

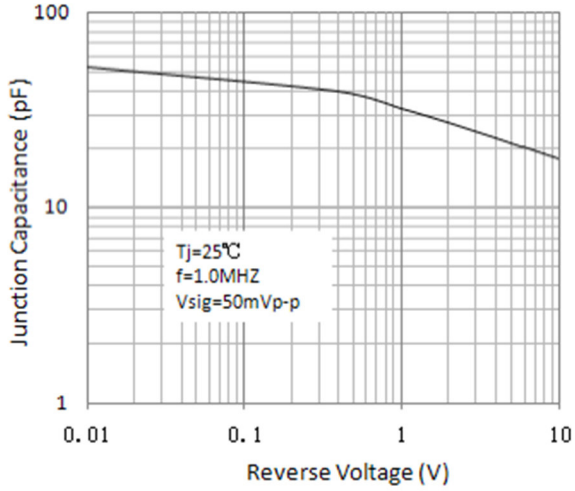

Figure 4. Typical Junction Capacitance

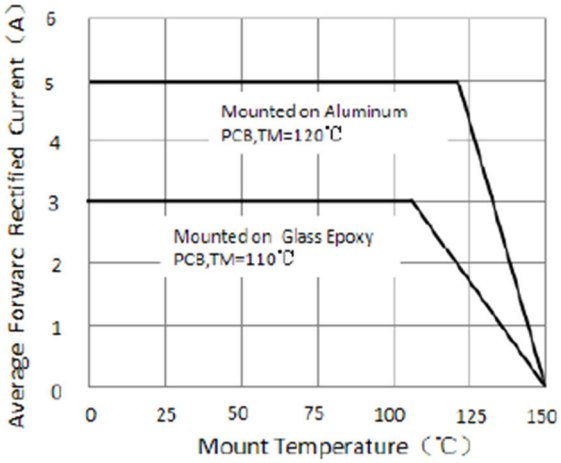

Figure 5.Forward Current Derating Curve

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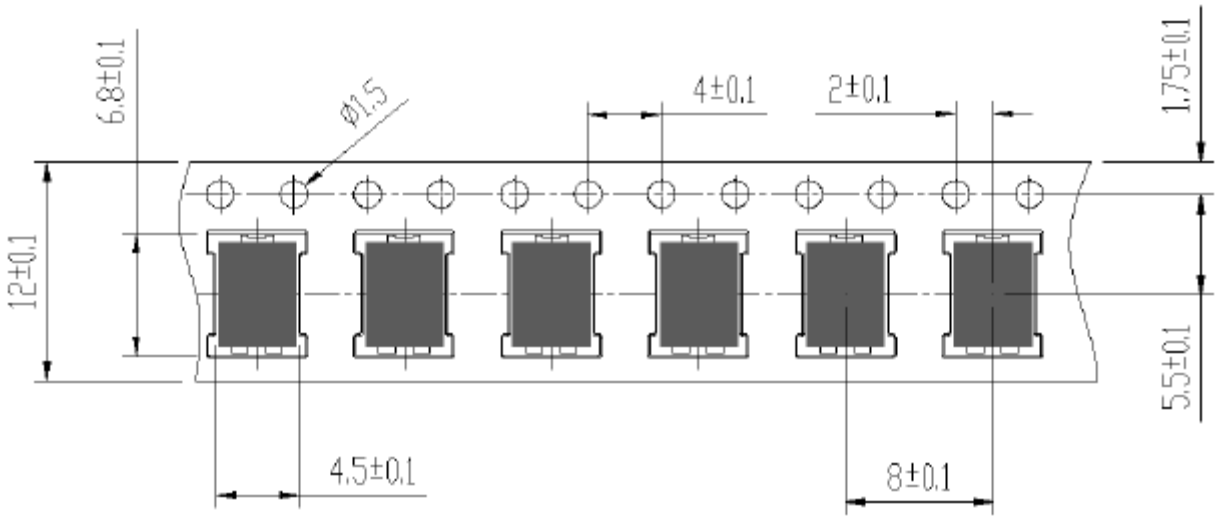
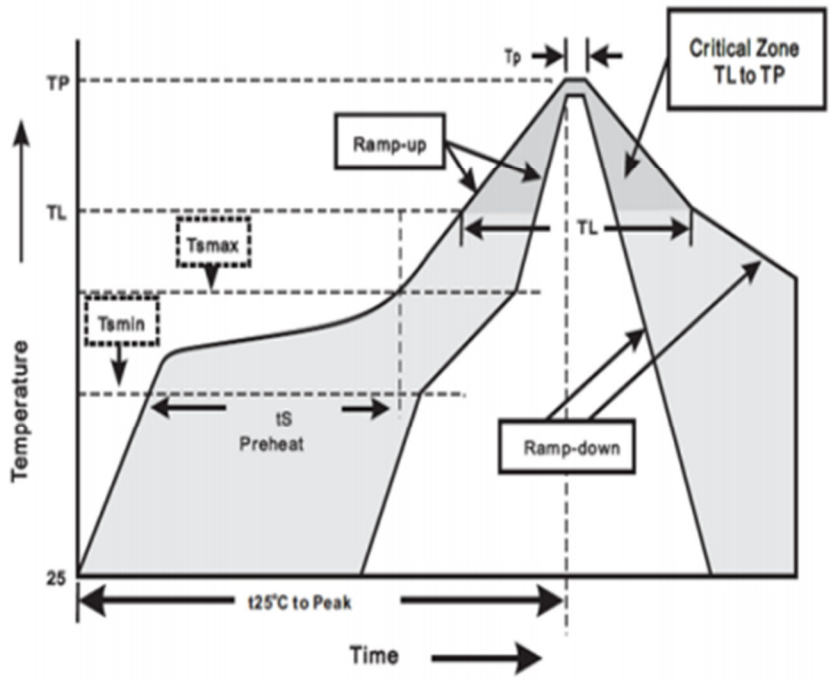
Size (Unit:mm)



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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