

FrelTec

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Germany

Super Fast Surface Mount Rectifier
TO-277

TO-277

Super Fast Surface Mount Rectifier

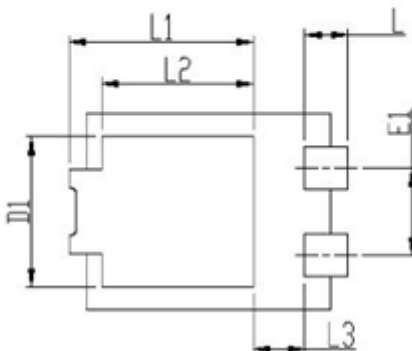
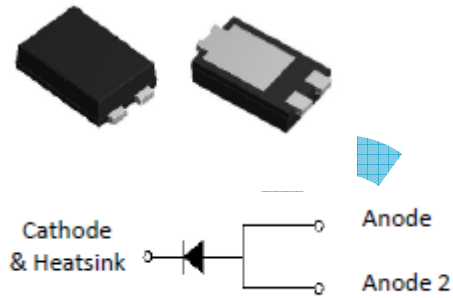
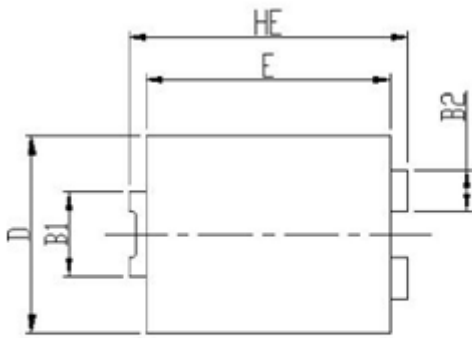
SPECIFICATION

68B	SGC040_Uxx	T277	L05
Type	Type	Package	Packing
68B: Surface Mount Superfast recovery Rectifier	SGC040_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	SGC0403U	SGC0404U	SGC0405U	SGC0406U	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)	4,0				A
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	SGC0403U	SGC0404U	SGC0405U	SGC0406U	Unit
Maximum instantaneous forward voltage	4A	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		300				
Maximum reverse recovery time	IF=0,5, IR=1,0A, I _{rr} =0,25A	t _{rr}	35				nS
Typical junction capacitance	4,0V, 1MHz	CJ	25				pF
Typical thermal resistance ¹⁾	junction to mount	R _{θJM}	15				°C /W

Notes: 1. Thermal resistance R_{θJM} is junction to mount, mounted on P.C.B with 30X30mm copper pad area

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Characteristics(Typical)

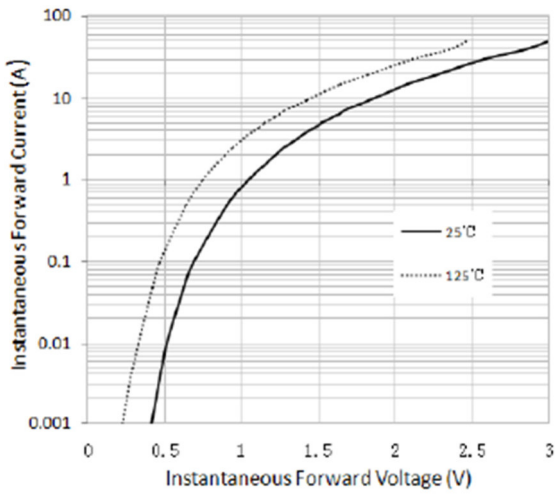


Figure 1. Typical Instantaneous Forward Characteristics

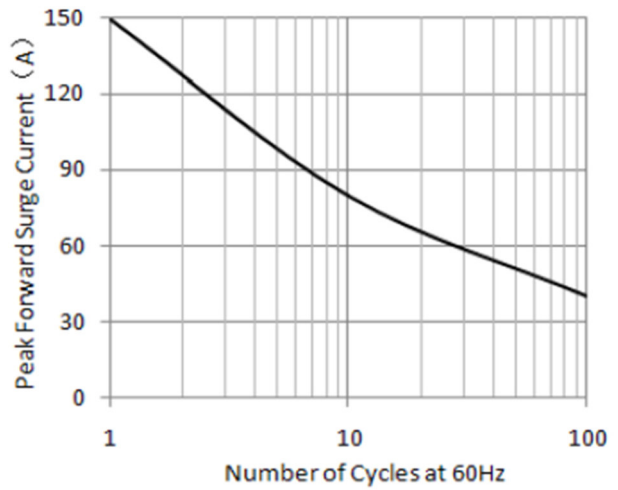


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

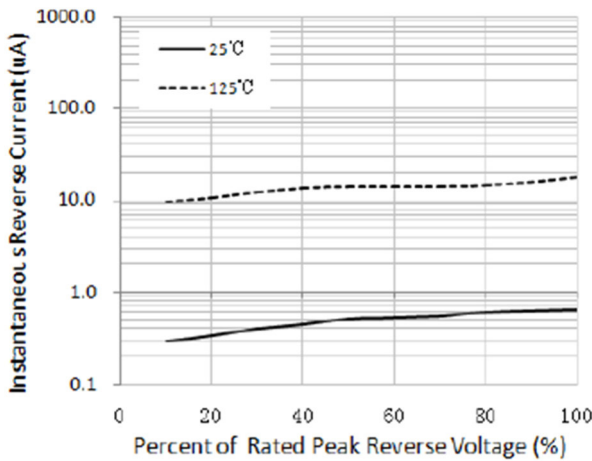


Figure 3. Typical Instantaneous Reverse Characteristics

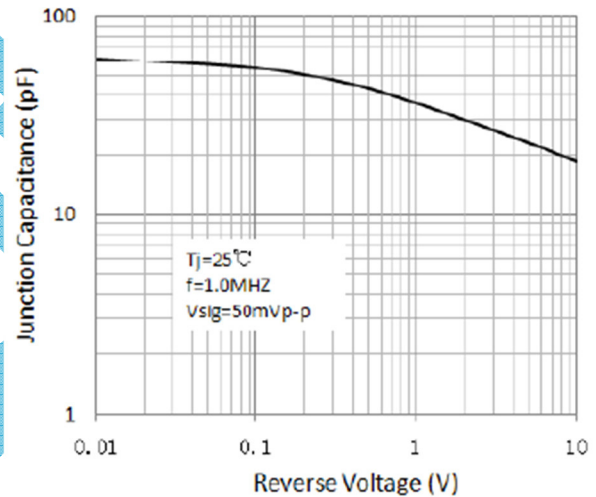


Figure 4. Typical Junction Capacitance

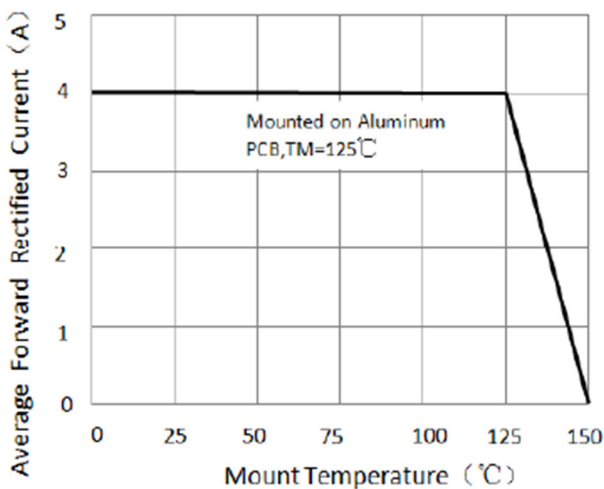
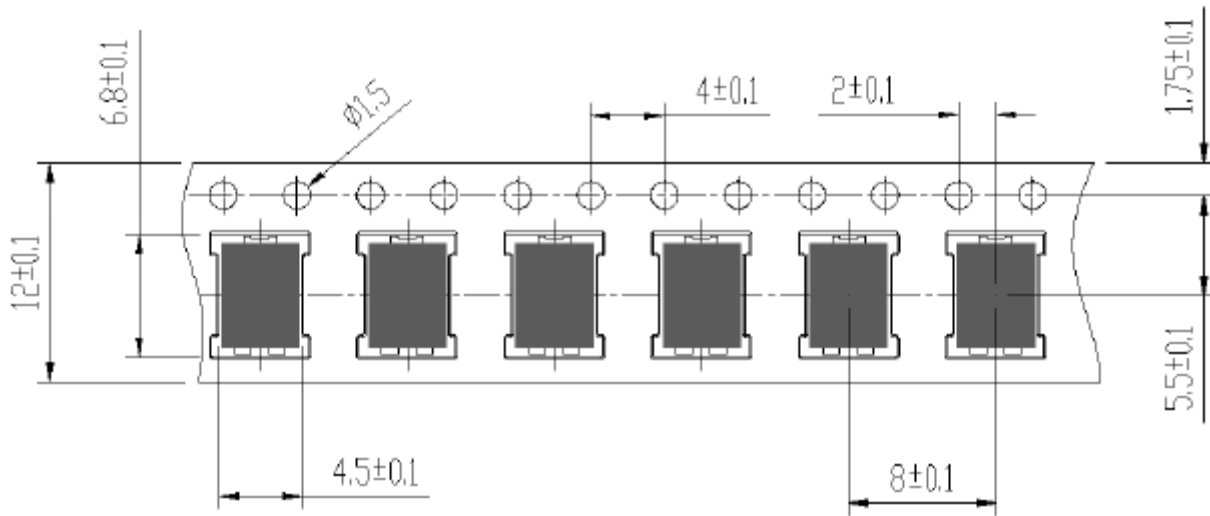


Figure 5. Forward Current Derating Curve

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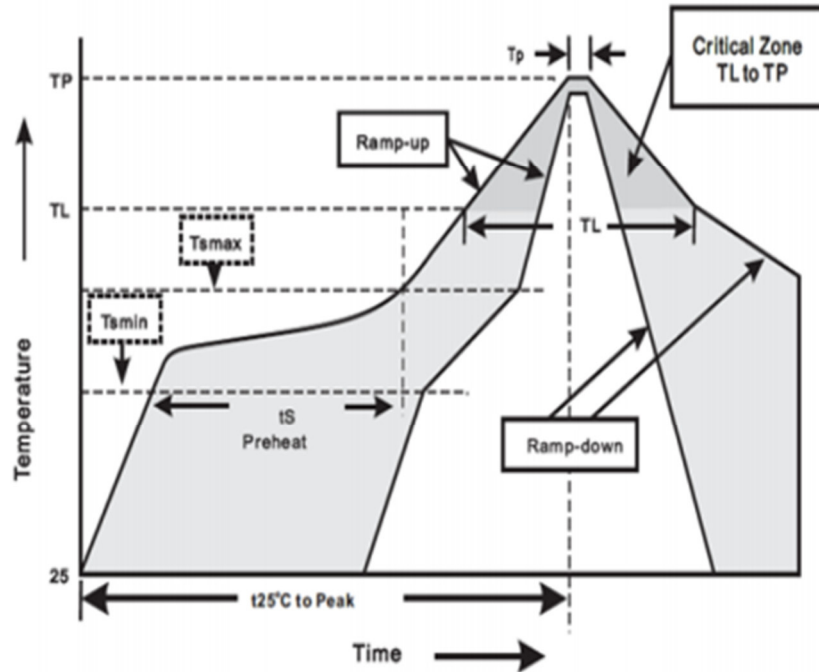
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Size (Unit:mm)



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Soldering Parameters



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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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