

FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

Surface Mount Standard Rectifier
SOD323F

SOD323F

Surface Mount Standard Rectifier

SPECIFICATION

68B	SGC61_Axxxx	S33F	E03
Type	Type	Package	Packing
68B: Surface Mount Standard Rectifier	SGC6_A	SOD323F eSGP	E03: tape in Embossed tape and reel for 3000 pc (7'REEL)

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

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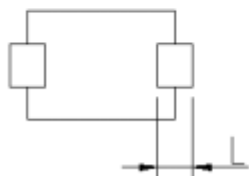
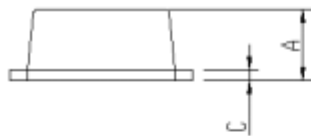
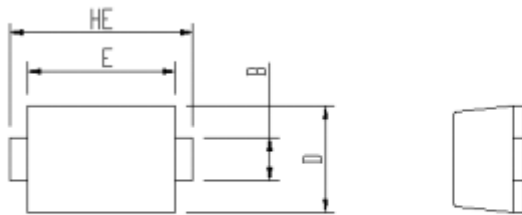
PACKAGE OUTLINE



RoHS
COMPLIANT

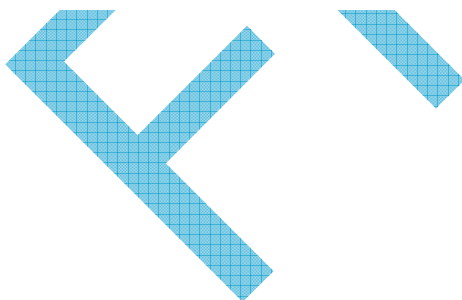
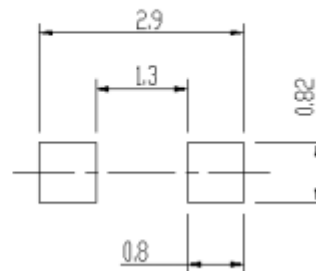


eSGP(SOD-323F)



Package	Unit:mm		Unit:inch	
	MIN	MAX	MIN	MAX
eSGP				
A	0.9	1.08	0.035	0.043
B	0.5	0.7	0.020	0.028
C	0.1	0.25	0.004	0.010
D	1.4	1.6	0.055	0.063
E	2.0	2.2	0.079	0.087
L	0.35	0.65	0.014	0.026
HE	2.4	2.8	0.094	0.110

Soldering footprint



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Maximum Ratings & Characteristics

TA = 25°C unless otherwise noted

Parameter	Symbol	SGP1A	SGP2A	SGP3A	SGP4A	SGP5A	SGP6A	SGP7A	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(See Fig.1)	IF(AV)	1,0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	25							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	SGP1A	SGP2A	SGP3A	SGP4A	SGP5A	SGP6A	SGP7A	Unit
Maximum repetitive peak reverse	1A	VF	1,1							V
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	5							uA
	TA=125°C		50							
Typical reverse recovery time	IF=0.5A, IR=1.0A, Irr=0.25A	trr	1,8							uS
Typical junction capacitance	4.0 V, 1 MHz	CJ	5							pF
Typical thermal resistance ¹⁾	junction to mount	R _{θJA} ¹⁾	55							°C /W

Note: 1)The thermal resistance from junction to mount, , mounted on P.C.B with 5x5mm copper pad area, 2 OZ, FR4

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Ratings and Characteristics Curves

Surface Mount Standard Rectifier

TA = 25°C unless otherwise noted

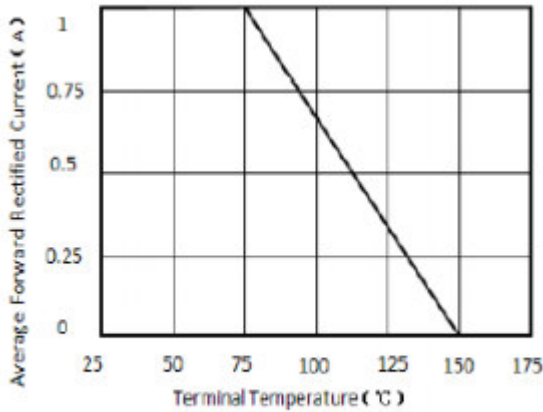


Figure 1. Forward Current Derating Curve

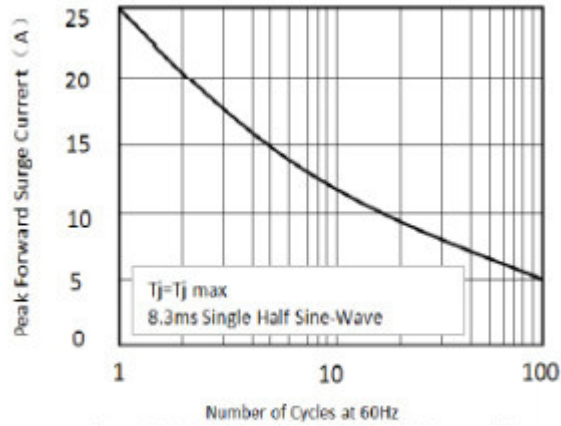


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

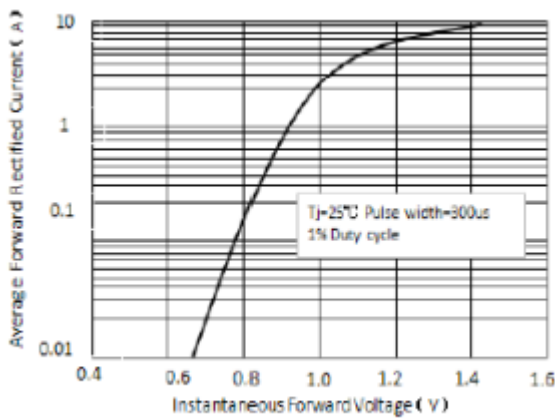


Figure 3. Typical Instantaneous Forward Characteristics

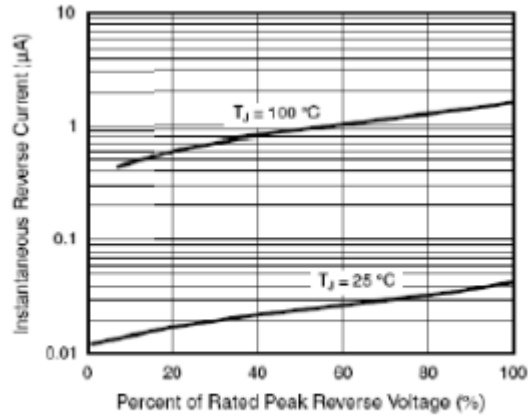


Figure 4. Typical Reverse Characteristics

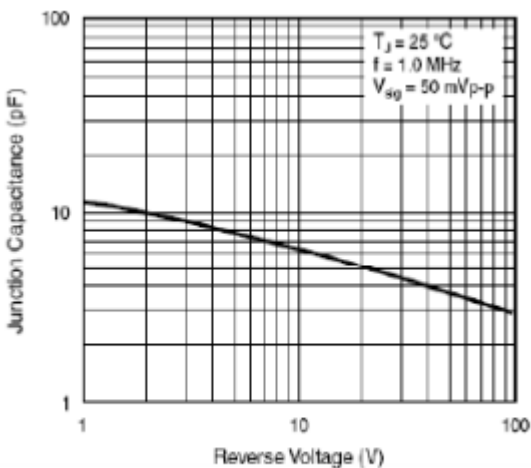


Figure 5. Typical Junction Capacitance

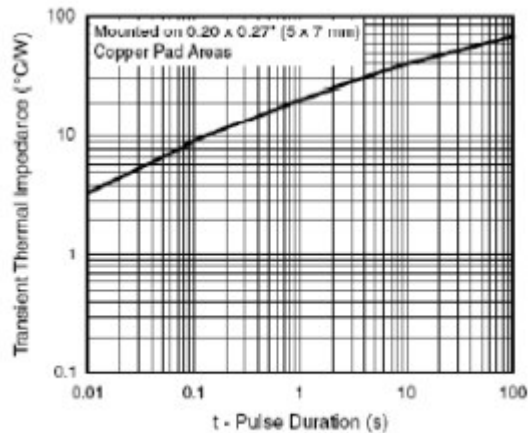
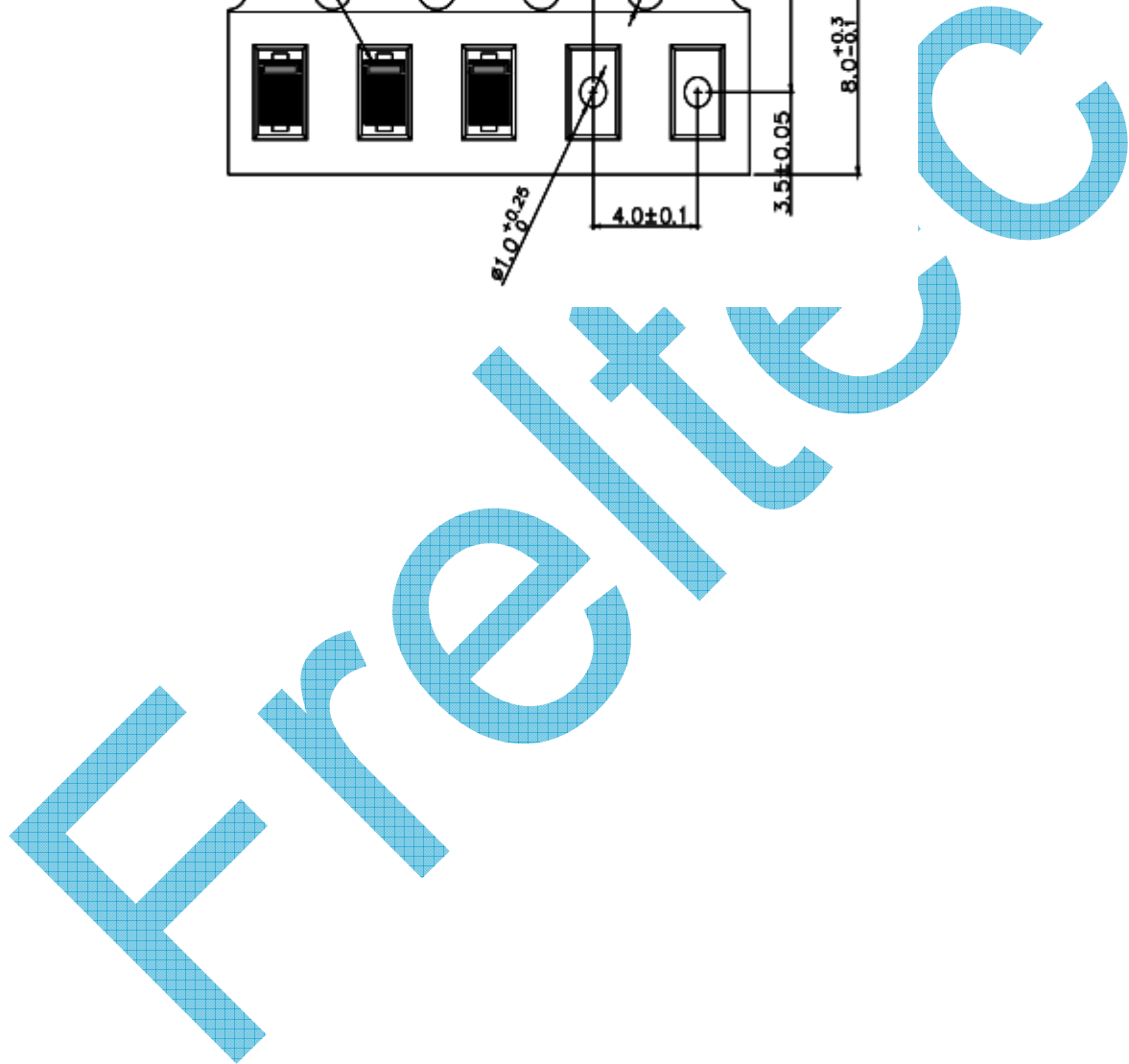
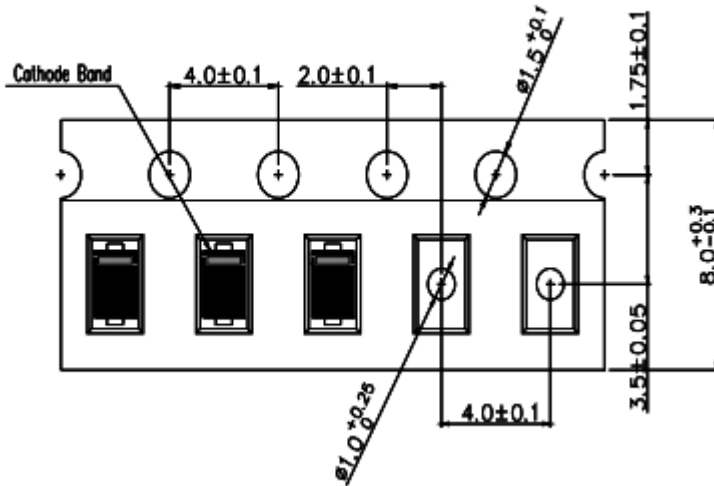


Figure 6. Typical Transient Thermal Impedance

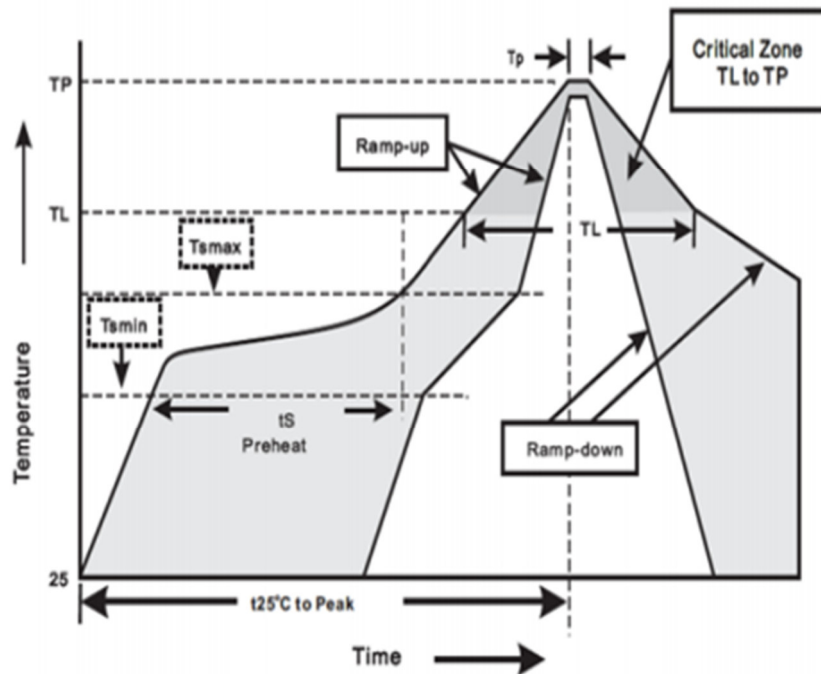
SOD323F
SPECIFICATION

Tape And Reel Package

Tape & Reel Specification



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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