

FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

Surface Mount Schottky Rectifier TO-277

TO-277

SPECIFICATION

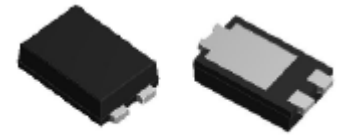
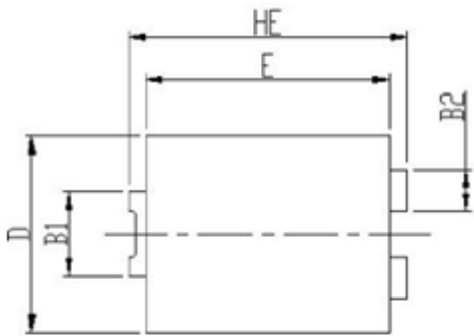
62B	SGC10_Sxx	T277	L05
Type	Type	Package	Packing
62B: Surface Mount Schottky Rectifier	SGC10_S	TO-277 eSGC	L05: tape in Embossed tape and reel for 5000 pc (13" REEL)

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

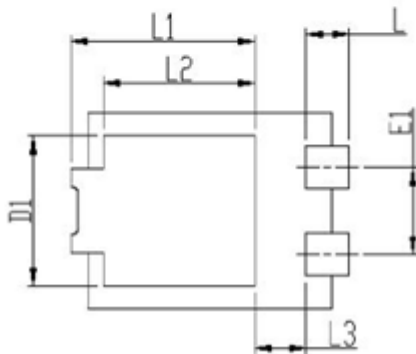
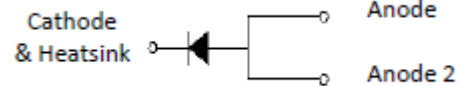
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PACKAGE OUTLINE

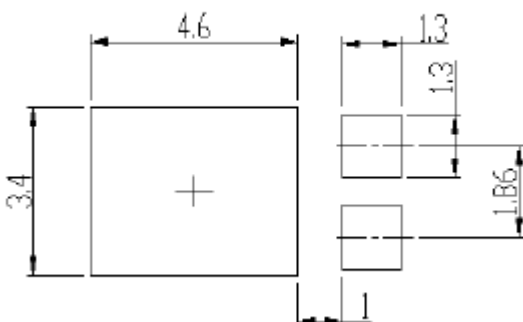


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eSGC



	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 Schottky Rectifier

Maximum Ratings & Characteristics

TA = 25°C unless otherwise noted

Parameter	Symbol	SGC1020S	SGC1030S	SGC1040S	SGC1045S	Unit
Maximum repetitive peak reverse	VRRM	20	30	40	45	V
Maximum RMS voltage	VRMS	14	21	28	31,5	V
Maximum DC blocking voltage	VDC	20	30	40	45	V
Maximum average forward rectified current	IF(AV) ¹⁾	10.0				A
	IF(AV) ²⁾	5.0				
Peak forward surge current 8,3ms single half sine-wave superimposed on rated load	IFSM	280				A
Operating junction and storage temperature	TJ, TSTG	-55 to +150				°C

Electrical Characteristics

TA = 25°C unless otherwise noted

Parameter	Test Conditions	Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	IF=1A IF=2A IF=10A TA=25°C	VF	0,30	0,35	Volts
			0,33	0,38	
			0,41	0,45	
	IF=1A IF=2A IF=10A TA=85°C		0,22	0,27	
			0,25	0,3	
			0,36	0,42	
	IF=1A IF=2A IF=10A TA=125°C		0,16	0,20	
			0,20	0,24	
			0,32	0,36	
Instantaneous reverse current	Rated VR TA=25°C TA=85°C TA=100°C	IR	0,23	0,3	mA
			14,5	18	
			35	39	
Typical junction	4,0 V, 1 MHz	CJ	0,95		nF
Typical thermal resistance ¹⁾	junction to ambient	REJA	80		°C / W
	junction to case	REJC	35		
	junction to mount	REJM	20		

Note:1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 30x30mm copper pads, 2 OZ, FR4 PCB

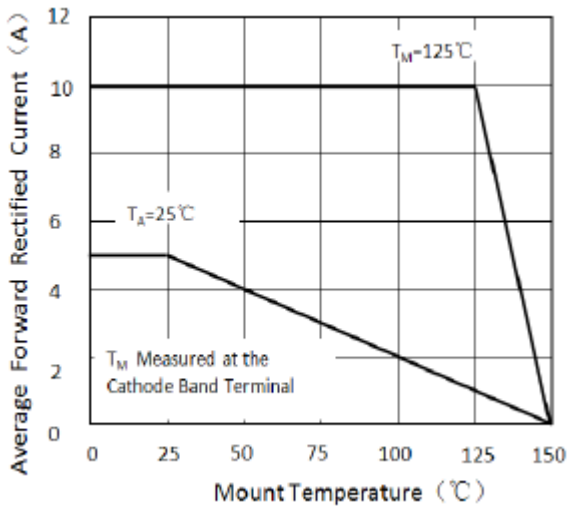
2): Mounted on recommended copper pad area, free air.

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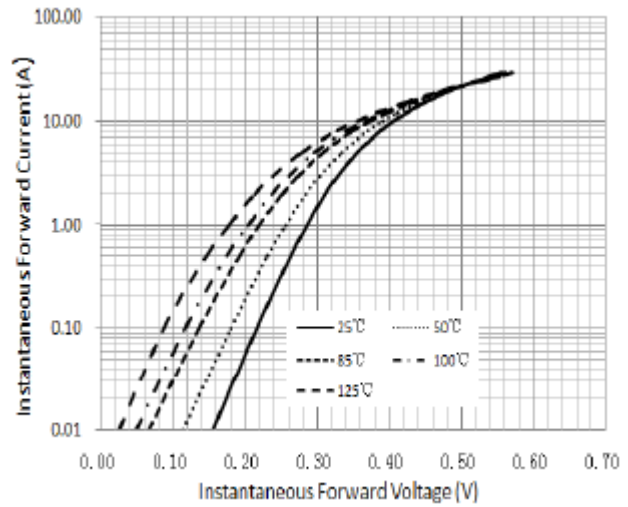
Surface Mount Schottky Rectifier

Ratings and Characteristics Curves

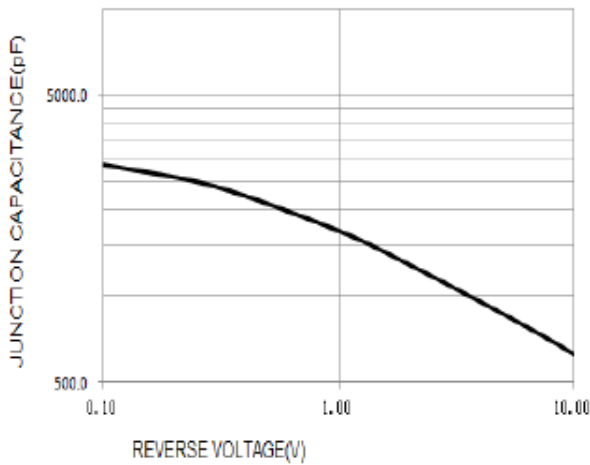
TA = 25°C unless otherwise noted



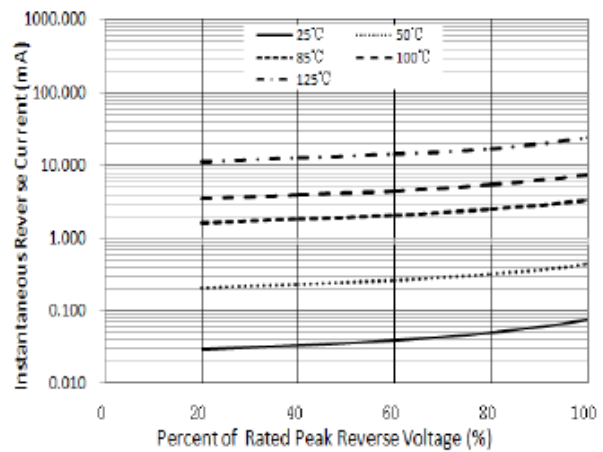
Forward Current Derating Curve



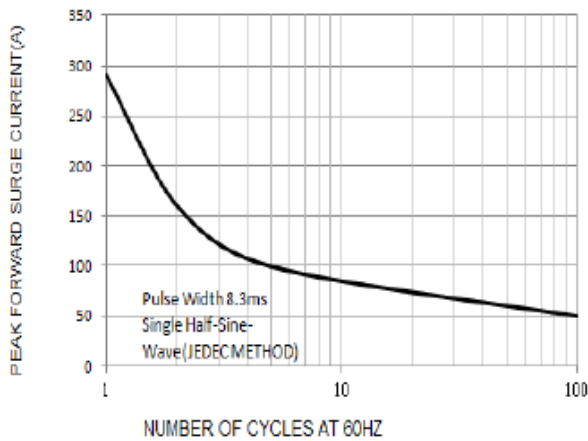
Typical Instantaneous Forward Characteristics



Typical Junction Characteristics



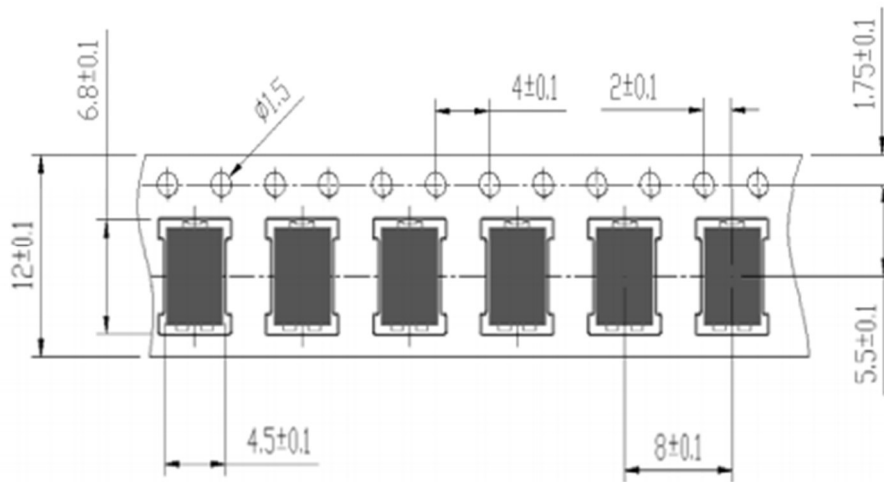
Typical Reverse Characteristics



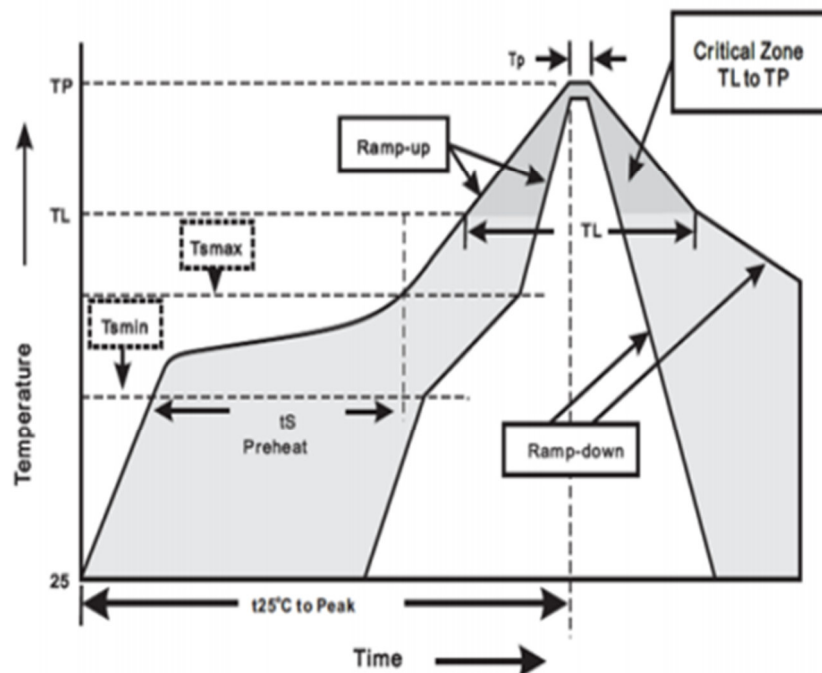
Maximum Non-Repetitive Peak Forward Surge Current

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SPECIFICATION

Tape And Reel Package



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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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