

# FrelTec

Mathildenstr. 10A  
82319 Starnberg  
Germany

Fast Recover Rectifier  
SOD123

## SOD123

## SPECIFICATION

683	RS1_Lxxxxx	SD13	E03
Type	Type	Package	Packing
683: Fast Recover Rectifier	RS1_L	SOD123	E03: tape in box (paper tape) for 3k pc (7'reel)

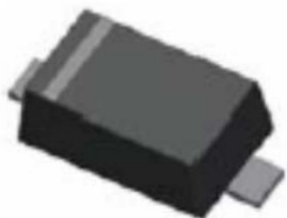
All products according to RoHS (2015/863/EU)

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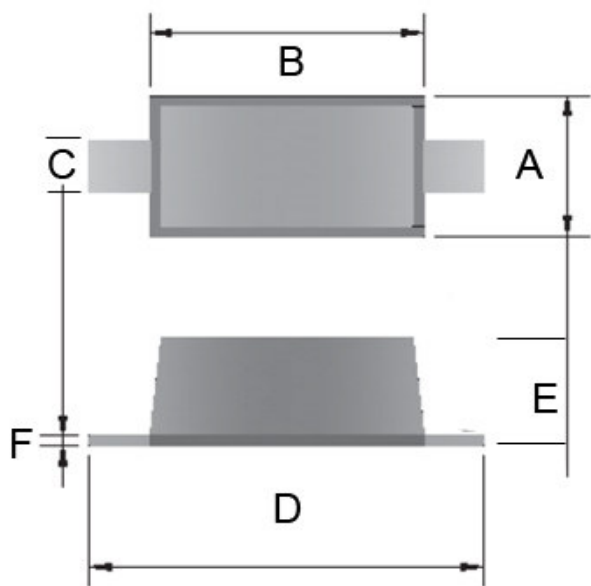
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FrelTec  
Fast Recover Rectifier  
RS1\_L

PACKAGE OUTLINE



DIMENSIONS



Dim	Min(mm)	Max(mm)
A	1,70	1,90
B	2,70	2,90
C	0,98	1,08
D	3,50	3,70
E	0,80	1,10
F	0,10	0,2

## SOD123

## Fast Recover Rectifier

Maximum Ratings &amp; Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

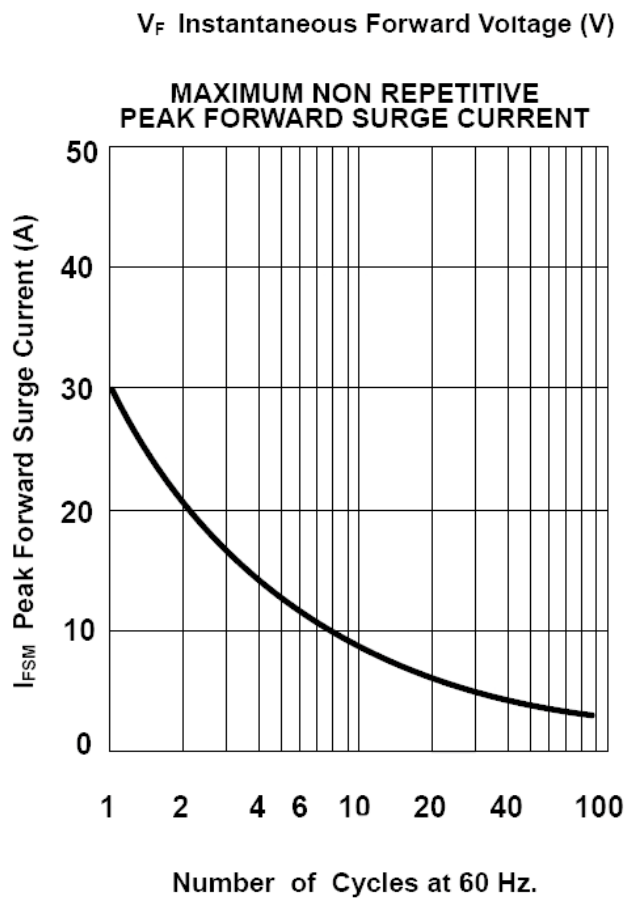
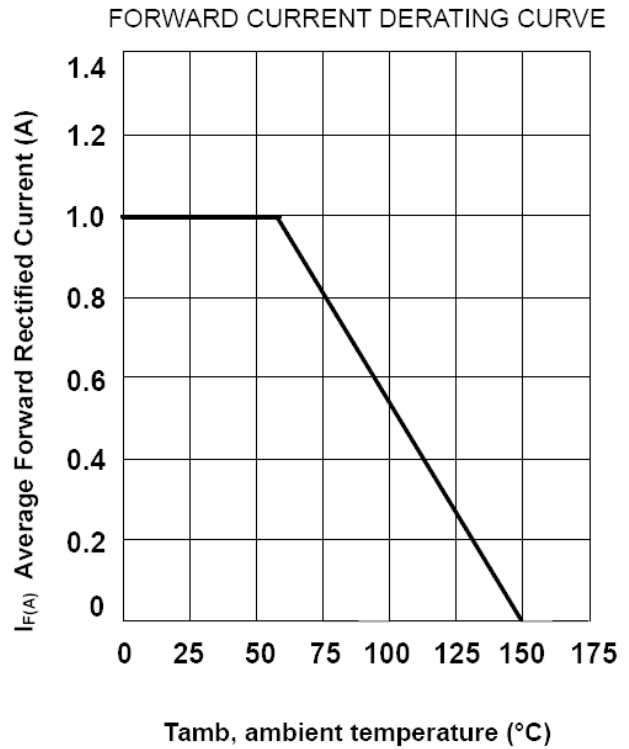
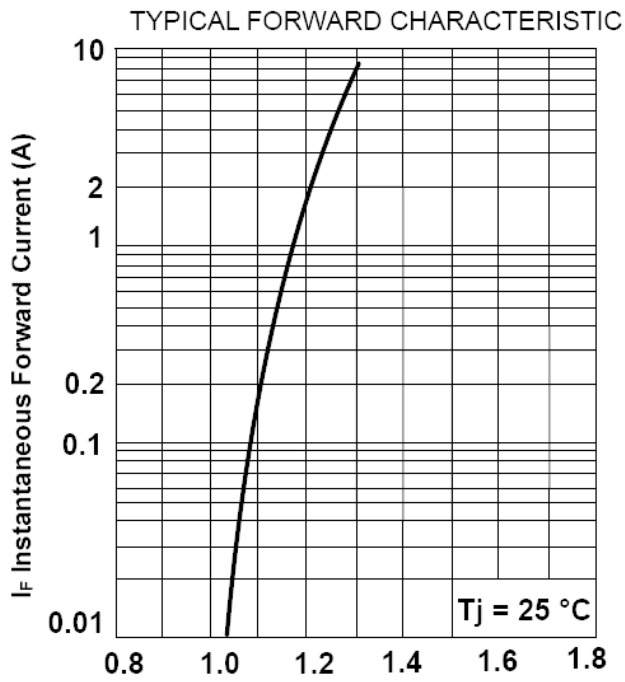
Parameter	Symbols	RS1 AL	RS1 BL	RS1 DL	RS1 GL	RS1 JL	RS1 KL	RS1 ML	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV)	1,0							A
Peak forward surge current 8,3 ms single half sine-wave	IFSM	30							A
Typical thermal resistance	RθJA	45							°C/W
Operating junction and storage temperature range	Tj, TSTG	-55 --- +150							°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	RS1 AL	RS1 BL	RS1 DL	RS1 GL	RS1 JL	RS1 KL	RS1 ML	Unit
IF = 1,0A Maximum forward voltage	VF	1,3							V
TA= 25°C Maximum reverse current TA=100°C	IR	5,0 100							µA
IF=0,5A IR=1,0A IRR=0,25A MAX. Reverse Recovery Time	trr	150				250	500		nS
VR = 4,0V, f = 1MHz Type junction capacitance	Cj	15							pF

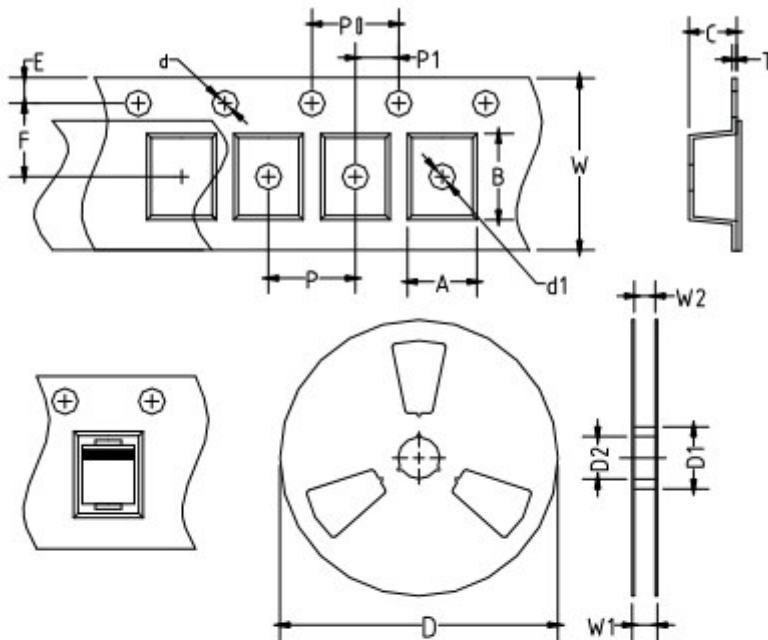
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Characteristics(Typical)

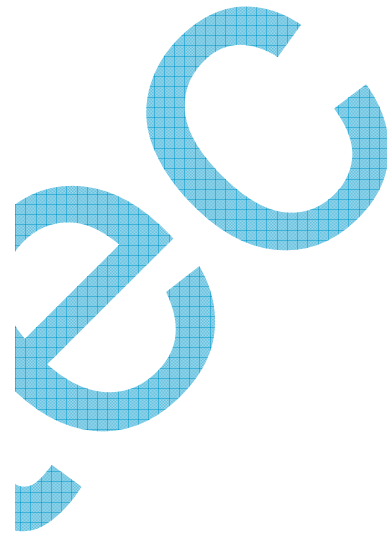


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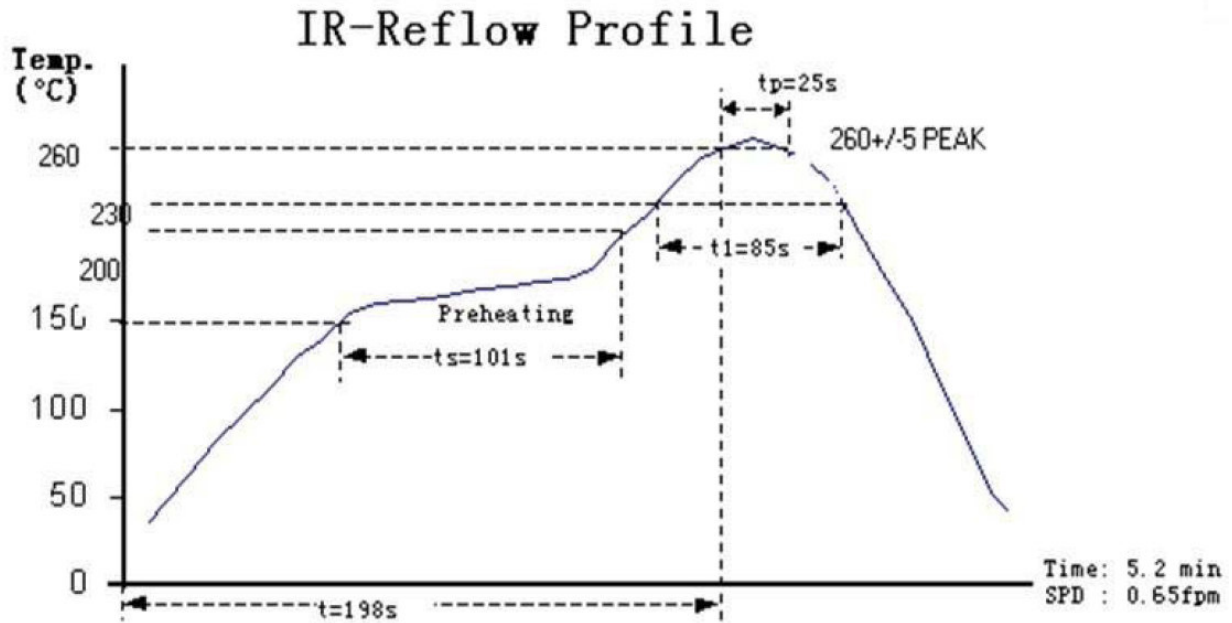
Size (Unit:mm)



Item	Symbol	SOD123
Carrier width	A	1.80±0.15
Carrier length	B	3.94±0.15
Carrier depth	C	1.58±0.15
Sprocket hole	d	1.50±0.10
Carrier hole	d1	1.10±0.10
Reel outside diameter	D	177.8±1.0
Reel inner diameter	D1	54±1.0
Feed hole diameter	D2	13.0±1.0
Strocket hole position	E	1.70±0.10
Punch hole position	F	3.50±0.05
Punch hole pitch	P	4.00±0.10
Sprocket hole pitch	P0	4.00±0.10
Embossment center	P1	2.00±0.10
Total tape thickness	T	0.20±0.10
Tape width	W	7.95±0.15
Reel width	W1	10.2±1.5
Reel width	W2	9.4±1.0



## Lead Free Reflow Soldering Profile



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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 0-35°C and a relative humidity 35-75%RH

3/4/2020

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Please read cautions and warnings and important notes at the end of this document.

7/8

[www.freltec.com](http://www.freltec.com)

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