

FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

General-purpose Rectifier
SMA

SMA

SPECIFICATION

683	S2_Axxxxxx	SMAX	L05
Type	Type	Package	Packing
683: General- purpose Rectifier	S2_A	SMAX	L05: tape in box (paper tape) for 5k pc (13'REEL)

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

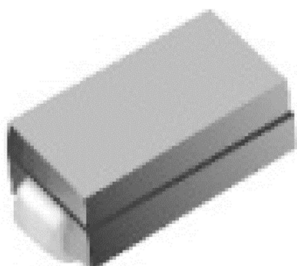
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SMA

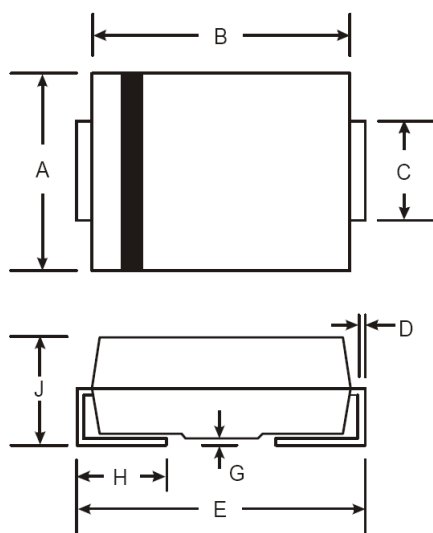
FrelTec
General-purpose Rectifier

S2_A

PACKAGE OUTLINE



DIMENSIONS



Dim	Min(mm)	Max(mm)
A	2,50	2,90
B	4,00	4,60
C	1,20	1,60
D	0,152	0,305
E	4,80	5,28
G	0,051	0,203
H	0,76	1,52
J	2,0	2,44

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Maximum Ratings & Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

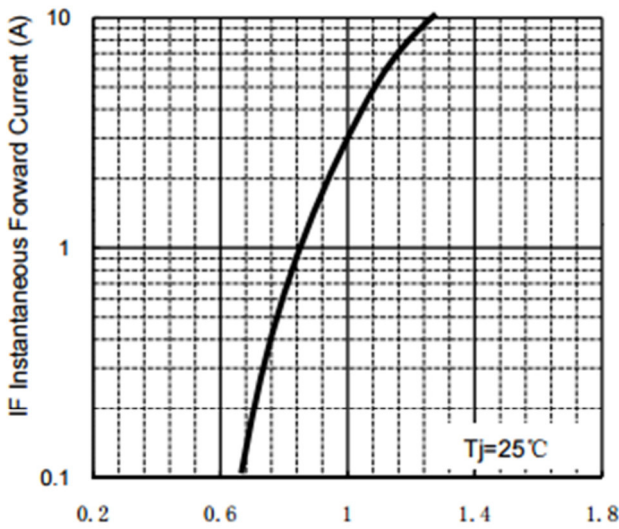
Parameter	Symbols	S2AA	S2BA	S2DA	S2GA	S2JA	S2KA	S2MA	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	2,0							A
Peak forward surge current 8,3 ms single half sine-wave	I_{FSM}	50							A
$I_F=1,0A$ Maximum forward voltage	V_F	1,1							V
Maximum reverse current $T_A = 25^\circ C$	I_R	5							μA
Typical thermal resistance(Note 1)	$R_{\theta JA}$	85							$^\circ C /W$
Operating junction and storage temperature range	T_j, T_{STG}	-55 ...+150							$^\circ C$

Note: 1. Thermal resistance from junction to ambient, PCB mounted.

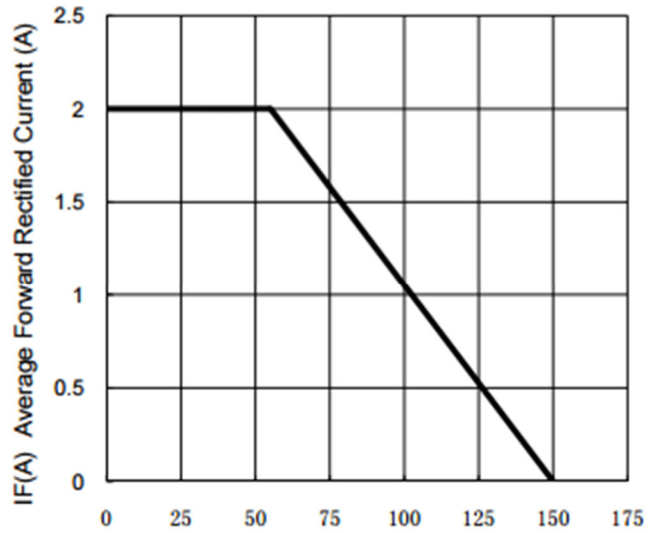
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Characteristics(Typical)

TYPICAL FORWARD CHARACTERISTIC



FORWARD CURRENT DERATING CURVE

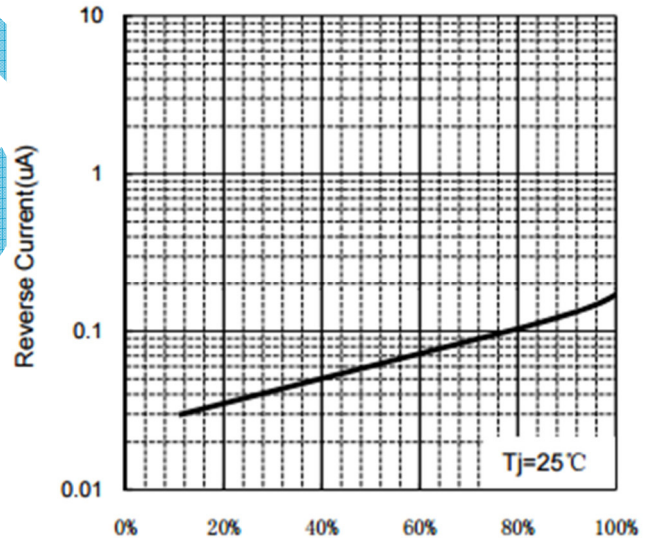
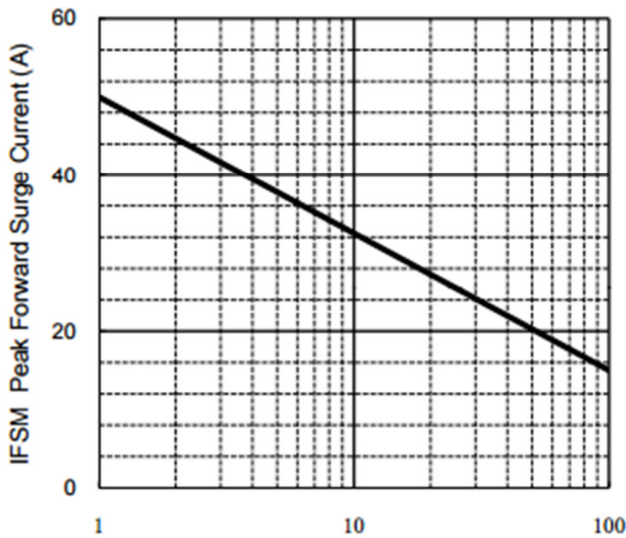


VF Instantaneous Forward Voltage (V)

T_{amb} , ambient temperature ($^\circ\text{C}$)

MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT

Typical Reverse Characteristics

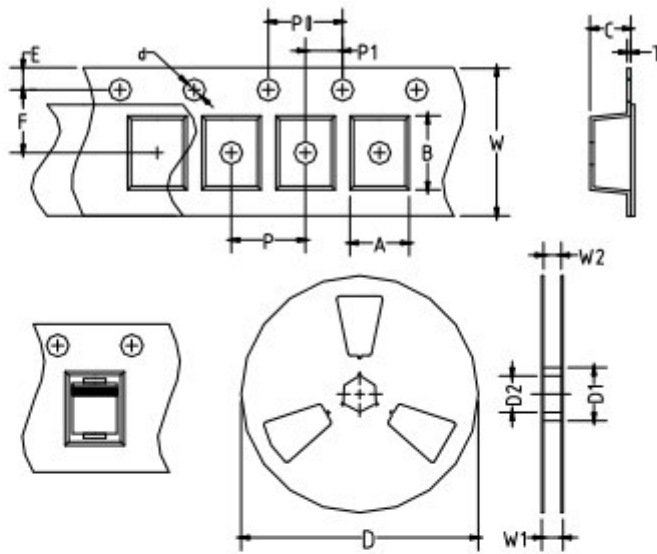


Number of Cycles at 60 Hz.

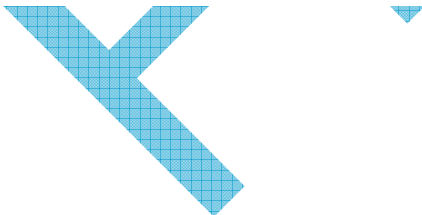
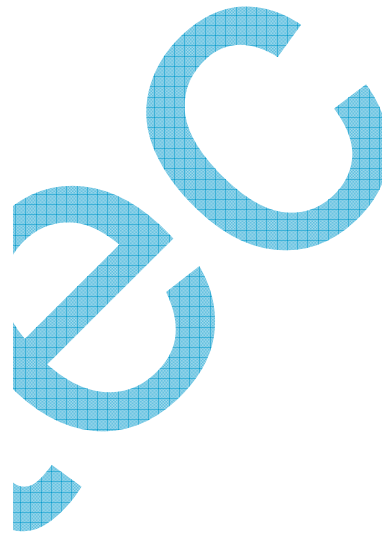
Percent Of Rated Peak Reverse voltage %

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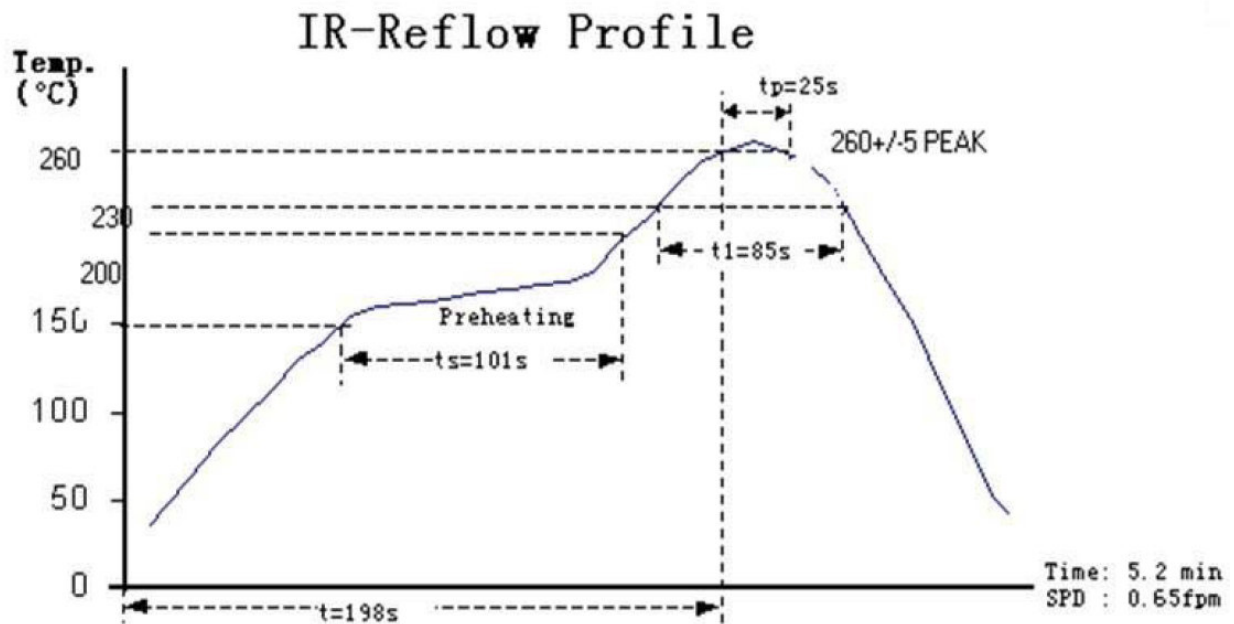
Size (Unit:mm)



Item	Symbol	SMA
Carrier width	A	2.79±0.15
Carrier length	B	5.33±0.15
Carrier depth	C	2.36±0.15
Sprocket hole	d	1.50±0.10
Reel outside diameter	D	330.0±1.0
Reel inner diameter	D1	75±1.0
Feed hole diameter	D2	13.5±1.0
Stocket hole position	E	1.75±0.10
Punch hole position	F	5.50±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	0.30±0.10
Tape width	W	12.00±0.15
Reel width	W1	18.1±1.5
Reel width	W2	13.5±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

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

7/8

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