

# FrelTec

Mathildenstr. 10A  
82319 Starnberg  
Germany

High-efficiency Rectifier  
SMB

## SMB

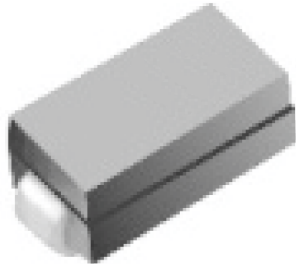
## SPECIFICATION

683	US2_XXXXXX	SMBX	L03
Type	Type	Package	Packing
683: Ultra-fast Recover Rectifier	US2_	SMBX	L03: tape and Reel(embossed tape) for 3k pc (13'REEL)

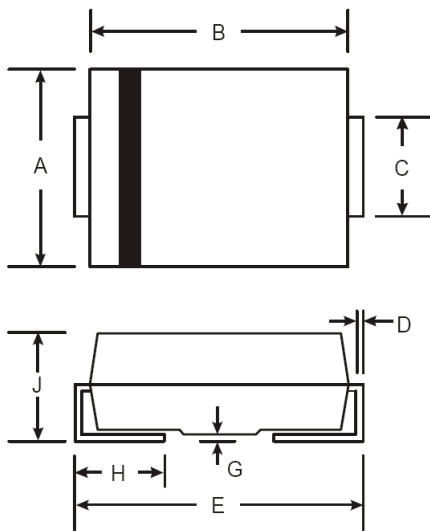
All products according to RoHS (2015/863/EU)

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**PACKAGE OUTLINE**



**DIMENSIONS**



Dim	Min(mm)	Max(mm)
A	3,30	3,94
B	4,06	4,70
C	1,91	2,11
D	0,15	0,31
E	5,08	5,59
G	0,05	0,20
H	0,76	1,27
J	2,13	2,44

## SMB

## High-efficiency Rectifier

Maximum Ratings &amp; Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

Parameter	Symbols	US2	US2	US2	US2	US2	US2	US2	Unit
		A	B	D	G	J	K	M	
Maximum repetitive peak reverse voltage	VRRM	50	100	150	200	300	400	600	V
Maximum RMS voltage	VRMS	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	VDC	50	100	150	200	300	400	600	V
Maximum average forward rectified current	IF(AV)	2,0							A
Peak forward surge current 8.3 ms single half sine-wave	IFSM	50							A
Typical thermal resistance	R $\theta$ JA	50							°C/W
Operating junction and storage temperature range	Tj, TSTG	-55 --- +150							°C

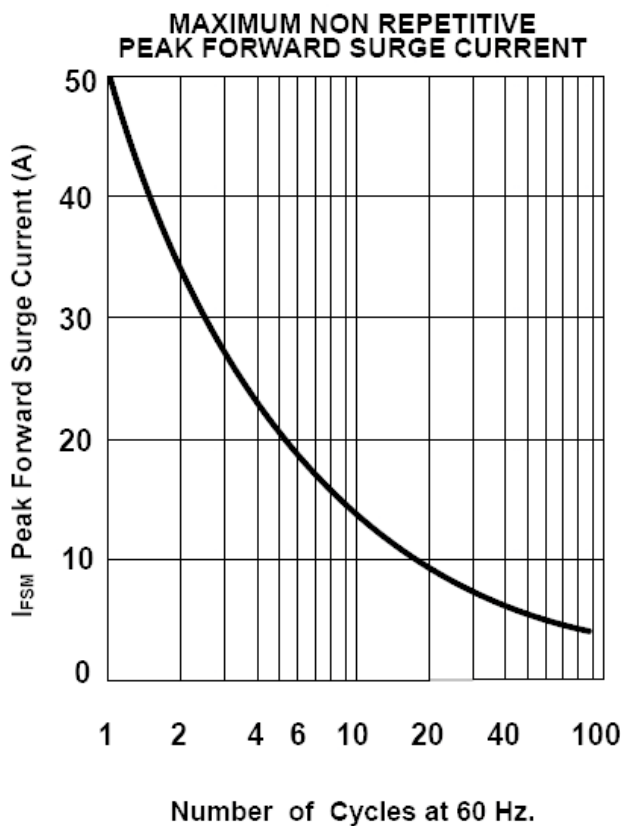
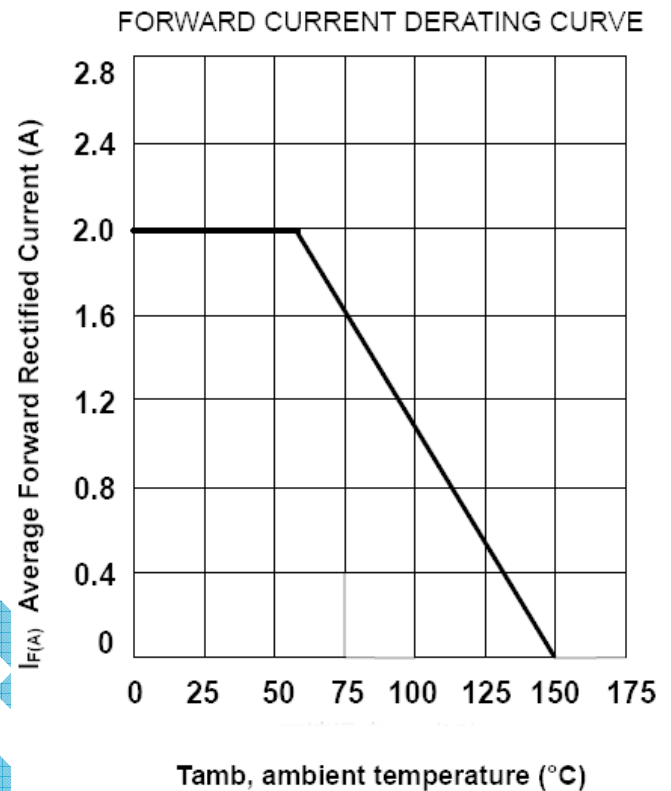
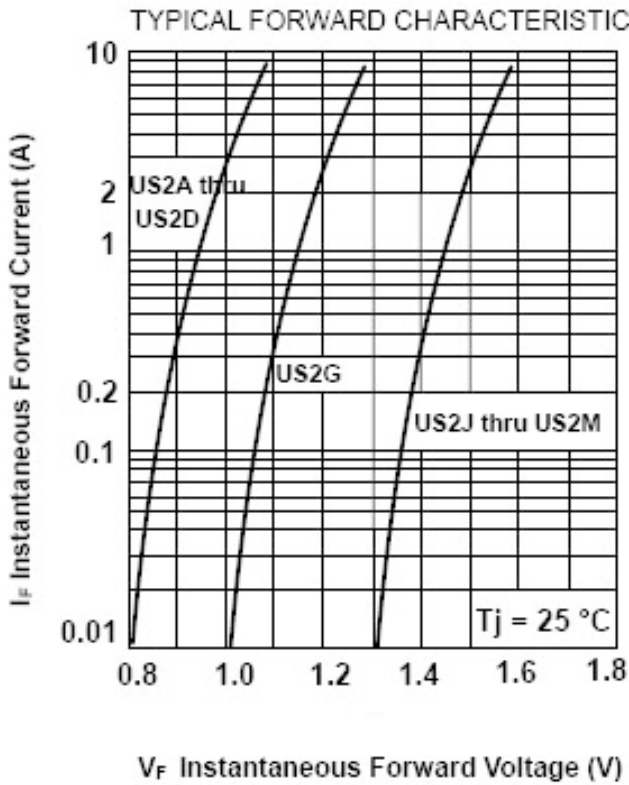
Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

Parameter	Symbols	US2	US2	US2	US2	US2	US2	US2	Unit
		A	B	D	G	J	K	M	
IF = 2,0A Maximum forward voltage	VF	1,0			1,3	1,7			V
TA= 25°C Maximum reverse current TA= 125°C	IR				10				μA
IF=0,5A IR=1,0A IRR=0,25A MAX, Reverse Recovery Time	trr	50			75			nS	
VR = 4,0V, f = 1MHz Type junction capacitance	Cj				15				pF

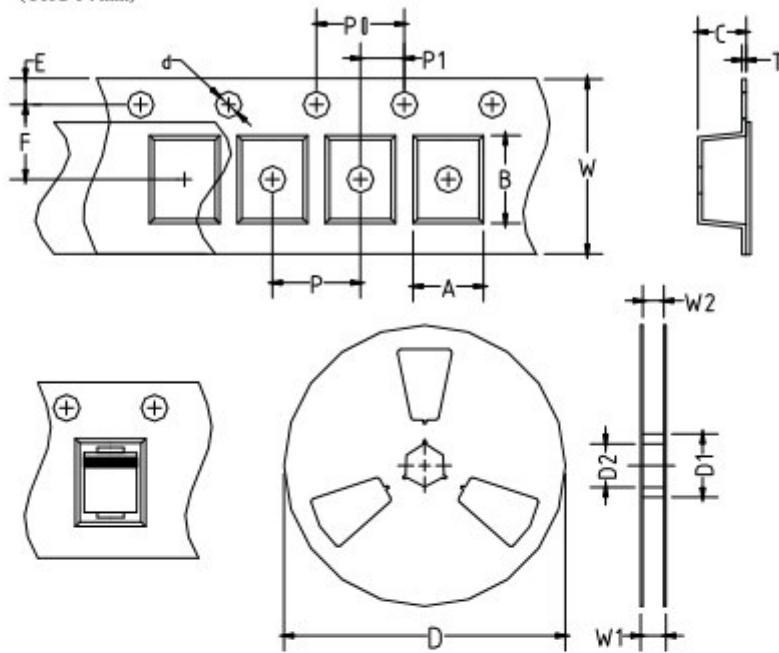
SMB

Characteristics(Typical)

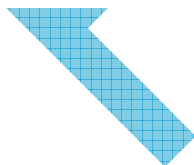
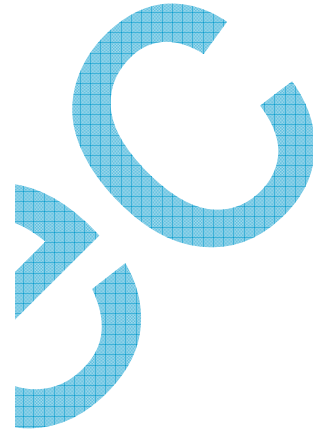


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Size (Unit:mm)



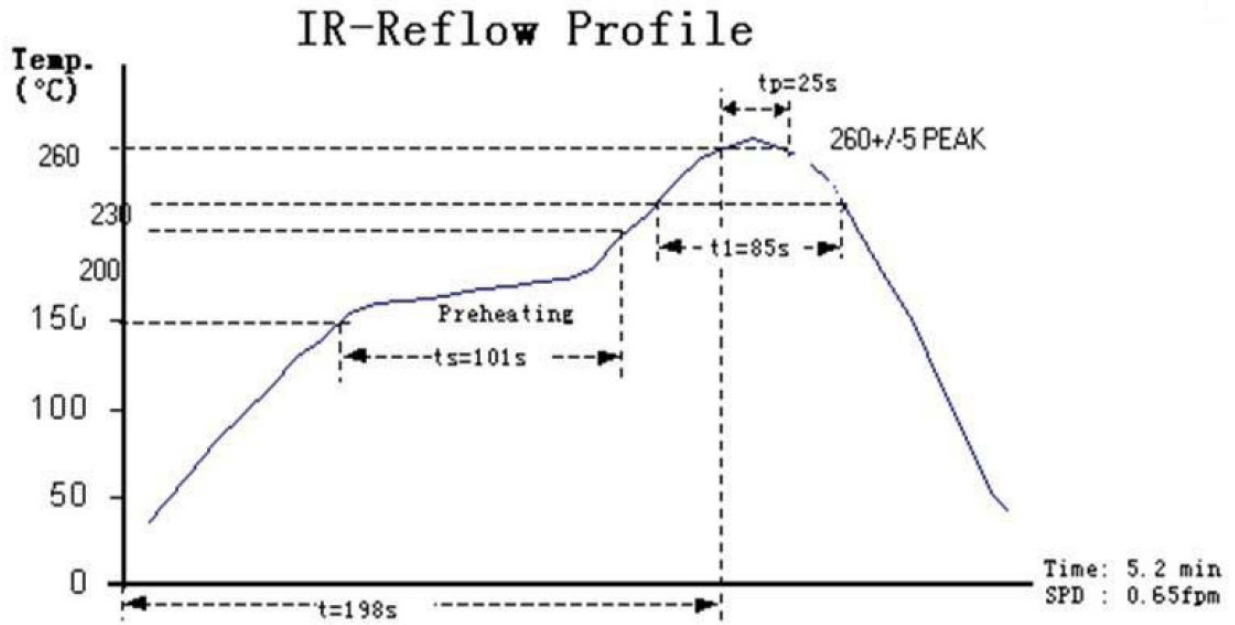
Item	Symbol	SMB
Carrier width	A	3.77±0.10
Carrier length	B	5.70±0.10
Carrier depth	C	2.45±0.10
Sprocket hole	d	1.50±0.10
Reel outside diameter	D	330.0±1.0
Reel inner diameter	D1	75±1.0
Feed hole diameter	D2	13.5±1.0
Sprocket hole position	E	1.75±0.10
Punch hole position	F	5.50±0.05
Punch hole pitch	P	8.00±0.10
Sprocket hole pitch	P0	4.00±0.10
Embossment center	P1	2.00±0.10
Total tape thickness	T	0.25±0.10
Tape width	W	12.00±0.15
Reel width	W1	18.1±1.5
Reel width	W2	13.5±1.0



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

# Lead Free Reflow Soldering Profile



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