

# FrelTec

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Germany

## Super Fast Surface Mount Rectifier SMA

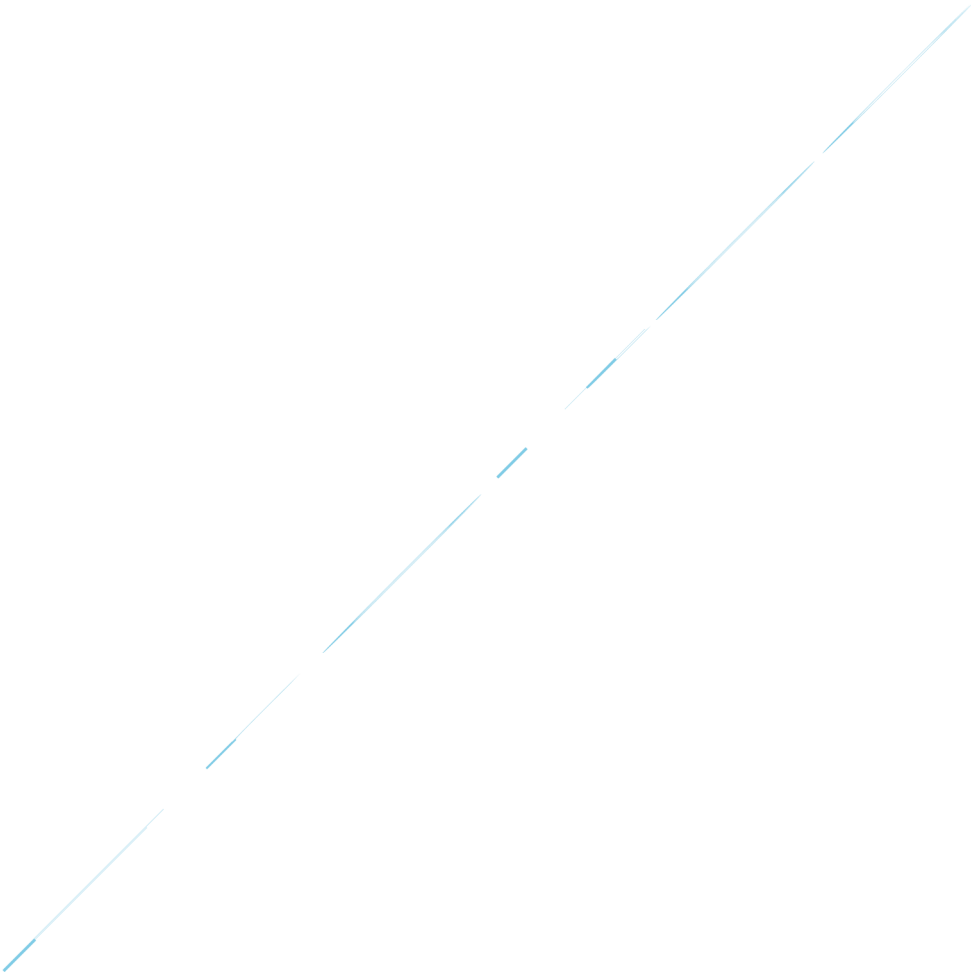
**SMB**

**Super Fast Surface Mount Rectifier**

SPECIFICATION

68B	ES2_XXXXXX	SMBX	L03
Type	Type	Package	Packing
68B: Super Fast Surface Mount Rectifier	ES2_	SMB	L03: tape and Reel(embossed tape)for 3k pc (13'REEL)

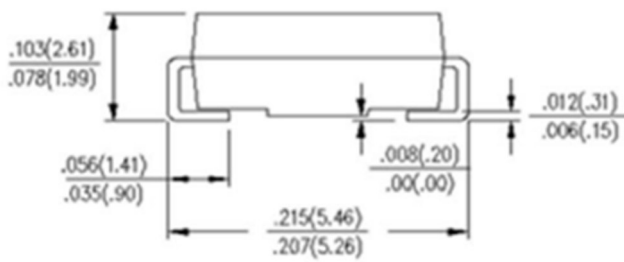
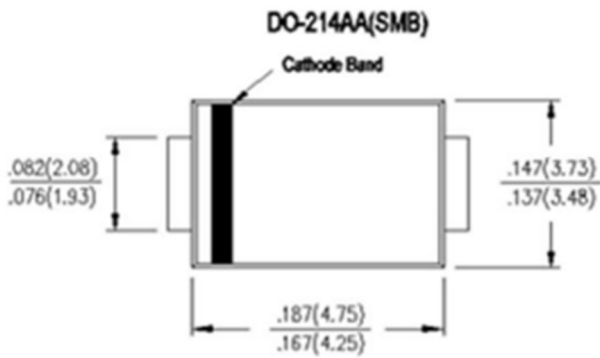
**All products according to RoHS (2015/863/EU)**



**PACKAGE OUTLINE**



DO-214AA (SMB)



## SMB

## Super Fast Surface Mount Rectifier

## Maximum Ratings &amp; Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	ES2A	ES2B	ES2C	ES2D	ES2F	ES2G	ES2J	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	Volts
Maximum average forward rectified current	$I_{F(AV)}$	2,0							Amps
Peak forward surge current 8,3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50							Amps
Rating for fusing( $t < 8,3ms$ )	$I^2t$	10,0							A <sup>2</sup> sec
Operating junction and storage temperature range	$T_j, T_{STG}$	-55 to +150							°C

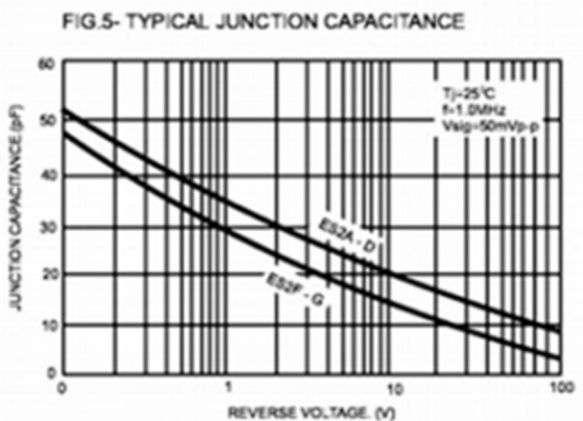
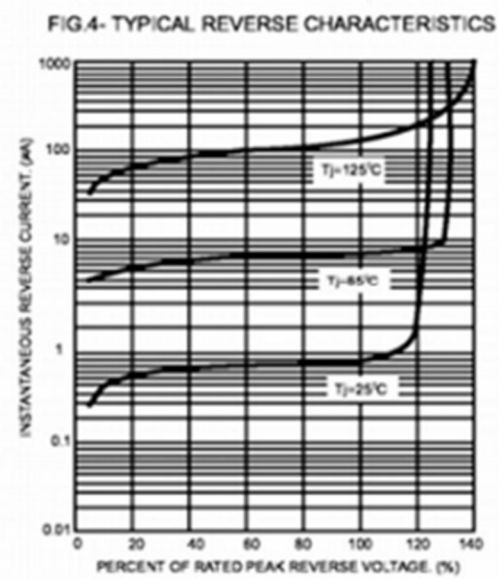
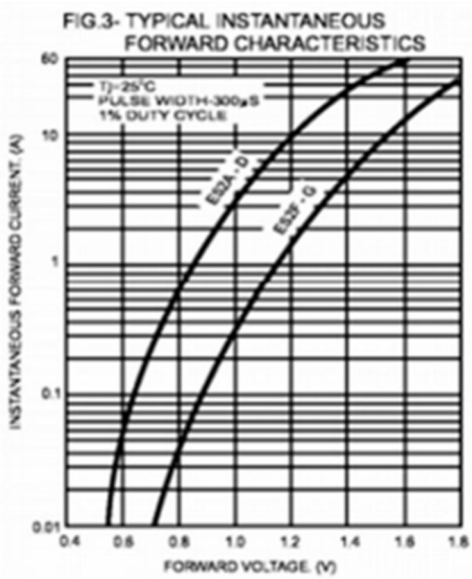
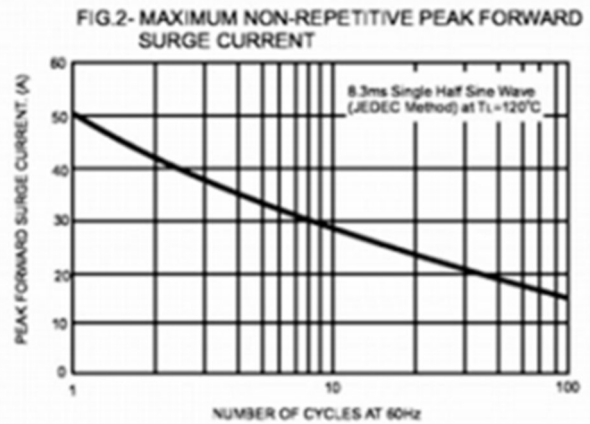
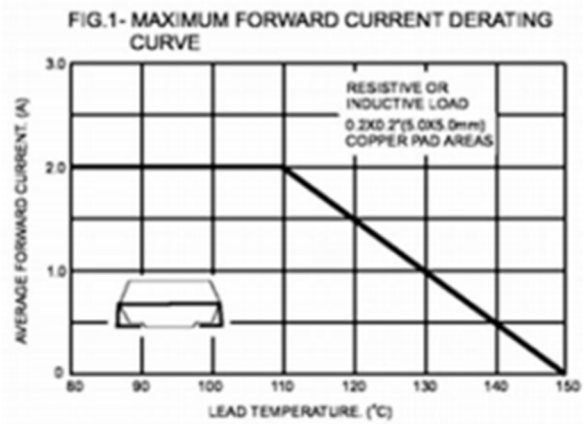
Electrical characteristic( $T_A = 25^\circ C$ unless otherwise noted)										
Parameter	Test condition	Symbols	ES2A	ES2B	ES2C	ES2D	ES2F	ES2G	ES2J	Unit
Maximum instantaneous forward voltage	$I_F = 2,0A$ $T_A = 25V$	$V_F$	0,95				1,3		1,7	Volts
Maximum DC reverse current at rated DC blocking voltage	$T_A = 25^\circ C$	$I_R$	10,0							uA
	$T_A = 100^\circ C$		100							
Maximum reverse recover time	$I_F = 0,5A$ . $I_R = 1,0A$ $I_{rr} = 0,25A$	$t_{rr}$	35				nS			
Typical junction capacitance	4,0V, 1 MHz	$C_j$	25				20		pF	
Typical thermal resistance <sup>(1)</sup>		$R_{\theta JA}$	75							°C/W
		$R_{\theta Ji}$	25							

Note:1. The thermal resistance from junction to ambient, case or mounted on P.C.B with 5X5mm copper pads, 2 OZ, FR4 PCB

SMB

Characteristics(Typical)

Super Fast Surface Mount Rectifier

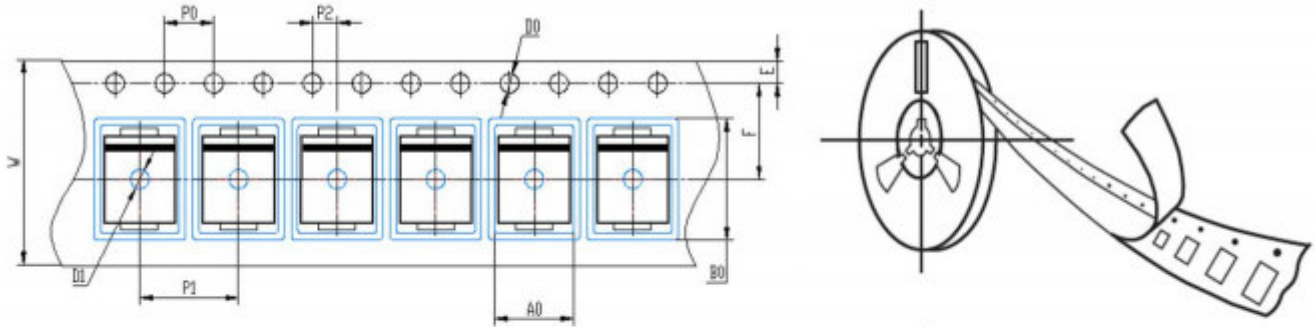


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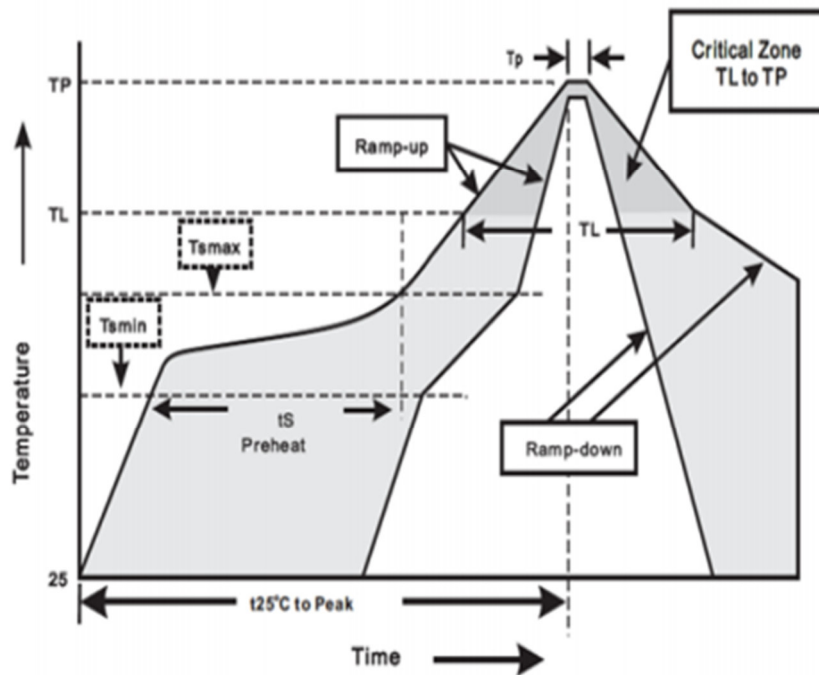
Super Fast Surface Mount Rectifier

Size (Unit:mm)

Tape & Reel Specification



Symbo	SMB (mm)
W	12 ± 0.2
E	1.75 ± 0.1
F	5.5 ± 0.05
D0	1.5 ± 0.1
D1	1.50 +0.1/-0
P0	4.0 ± 0.1
P1	8.0 ± 0.1
P2	2.0 ± 0.05
A0	3.95 ± 0.1
B0	5.74 ± 0.1

**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

11/5/2020

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

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