

FrelTec

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Germany

High Efficient Surface Mount Rectifier SMB

SMB

High Efficient Surface Mount Rectifier

SPECIFICATION

68B	HS2_XXXXXX	SMBX	L03
Type	Type	Package	Packing
68B: Surface Mount Superfast recovery Rectifier	HS2_	SMB	L03: tape and Reel(embossed tape)for 3k pc (13'REEL)

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



SMB

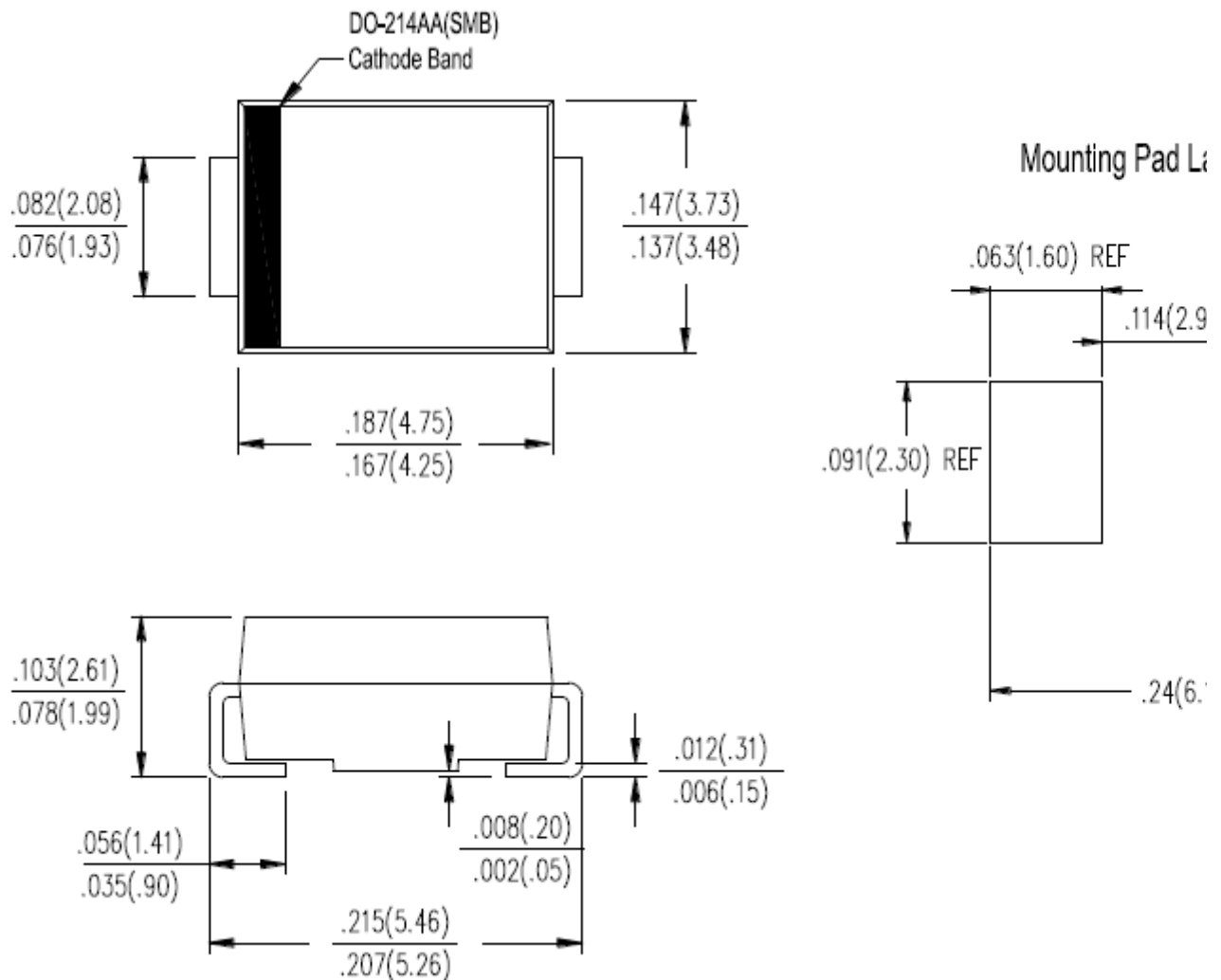
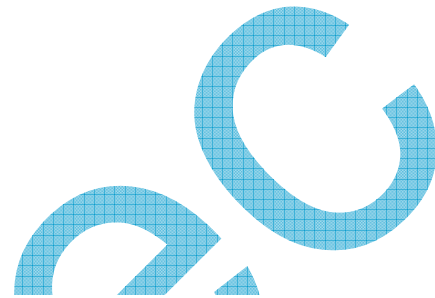
High Efficient Surface Mount Rectifier

HS2A thru HS2M

PACKAGE OUTLINE



DO-214AA (SMB)



SMB

High Efficient Surface Mount Rectifier

Maximum Ratings & Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	HS2A	HS2B	HS2D	HS2F	HS2G	HS2J	HS2K	HS2M	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	300	400	600	800	1000	V
Maximum average forward rectified current	IF(AV)	2,0								A
Peak forward surge current 8,3 ms single half sine-wave superimposed on rated load	IFSM	55								A
Rating for fusing(t<8,3ms)	I ² t	12,6								A ² sec
Operating junction and storage temperature range	TJ,TSTG	-55 to +150								°C

Electrical Characteristics (TA = 25°C unless otherwise noted)											
Parameter	Test Conditions	Symbols	HS2A	HS2B	HS2D	HS2F	HS2G	HS2J	HS2K	HS2M	Unit
Maximum instantaneous forward voltage	IF=2,0A TA=25°C	VF		1,0			1,3		1,7		Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	5,0								uA
	TA=125°C		100								
Maximum reverse recovery time	IF=0,5A, IR=1,0A IRR=0,25A	trr			50				75		nS
Typical junction capacitance	4,0V, 1 MHz	CJ			15				10		pF

Thermal Characteristics										
Parameter	Symbols	HS2A	HS2B	HS2D	HS2F	HS2G	HS2J	HS2K	HS2M	Unit
Typical thermal resistance ⁽¹⁾	R _{θJA}	54								°C /W
	R _{θJC}	16								
	R _{θJI}	7								

Notes: 1). The thermal resistance from junction ambient, case or mount, mounted on P.C.B with 8X8mm copper pads, 2 OZ, FR4 PCB

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Characteristics(Typical)

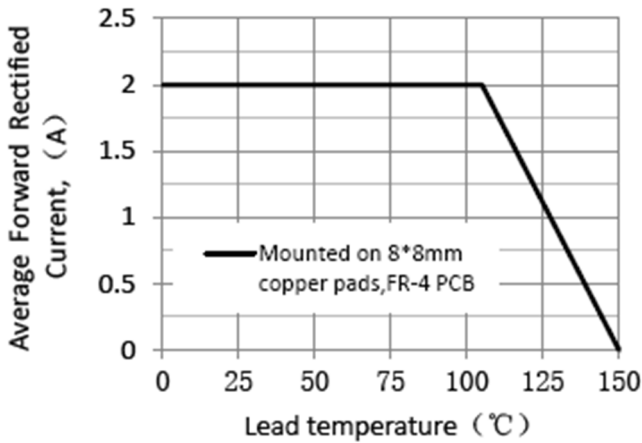


Figure 1. Forward Current Derating Curve

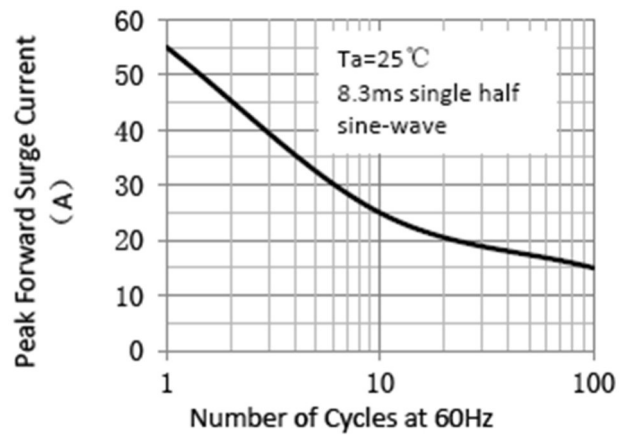


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

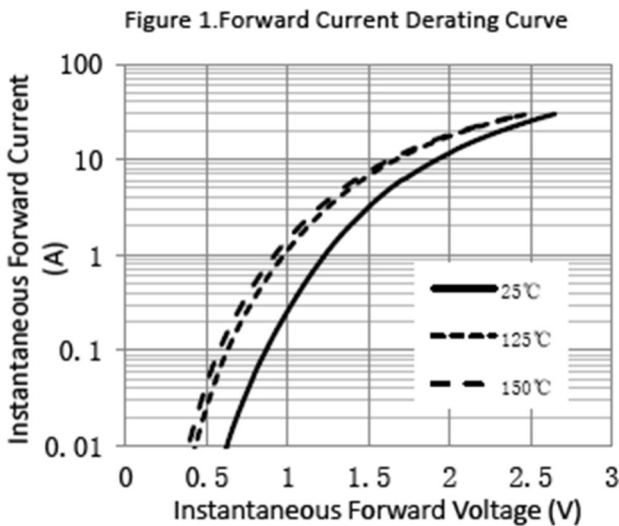


Figure 3. Typical Reverse Characteristics

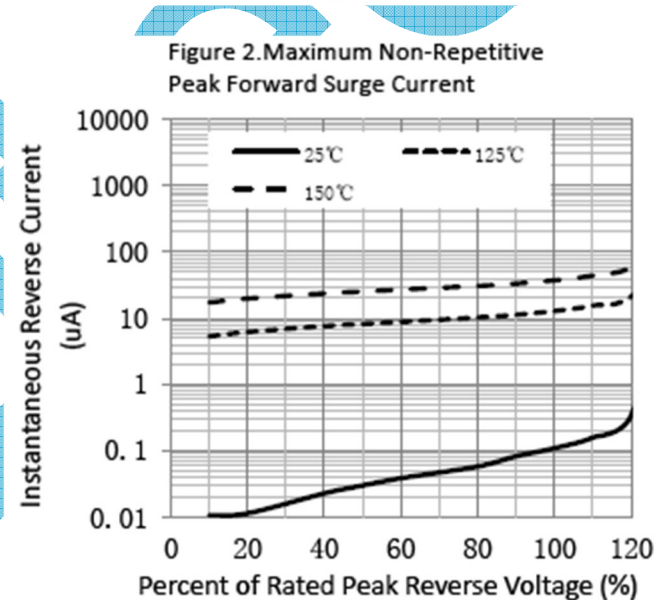


Figure 4. Typical Instantaneous Forward Characteristics

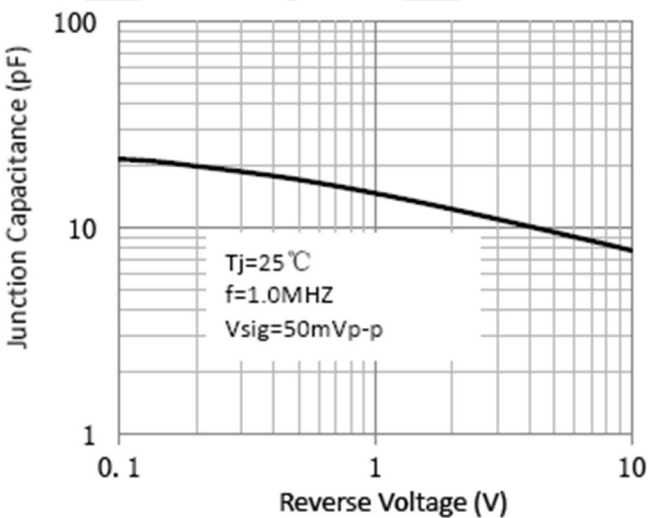


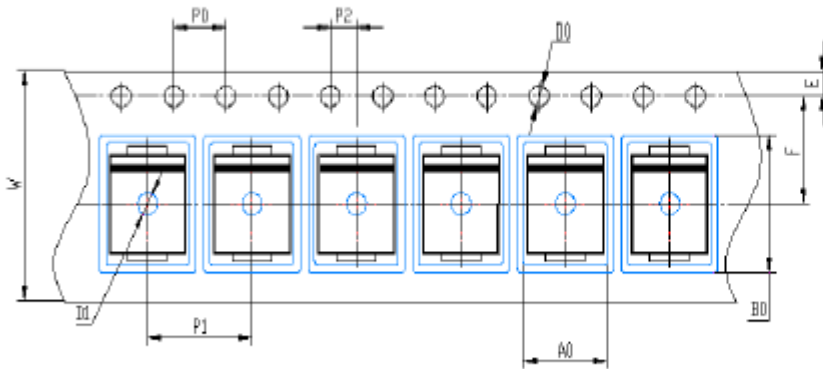
Figure 5. Typical Junction Capacitance

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Size (Unit:mm)

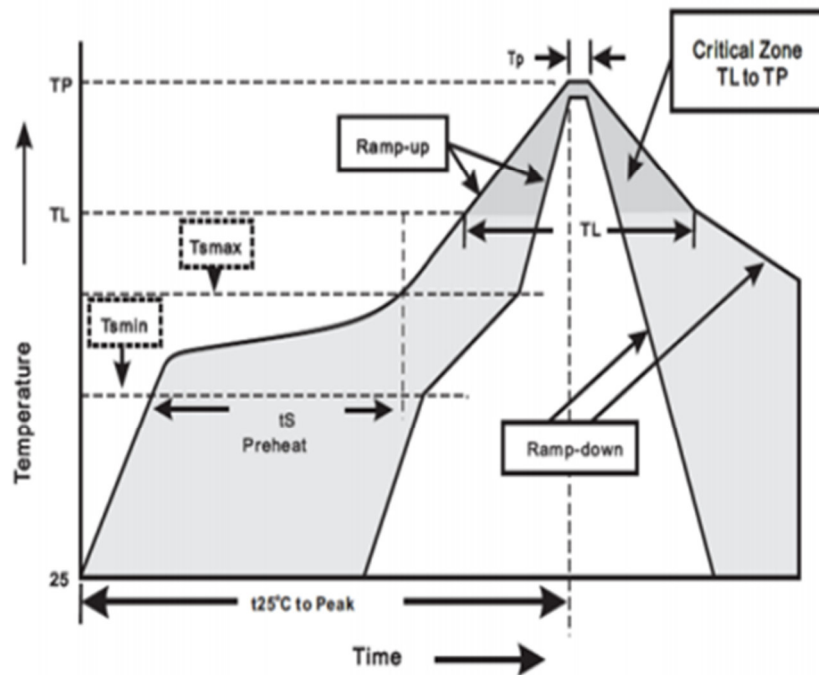
Tape & Reel Specification



Symbols	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

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Soldering Parameters



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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 20-30°C and a relative humidity 20-60%RH

11/5/2020

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