

# FrelTec

Mathildenstr. 10A  
82319 Starnberg  
Germany

Switching Diode  
SOT-23

# SOT-23

## SPECIFICATION

613		BAV99xxxxx		ST23		E03
Type		Type		Package		Packing
613: Switching Diode		BAV99		SOT23		E03: tape and Reel(embossed tape)for 3k pc (7'REEL)

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

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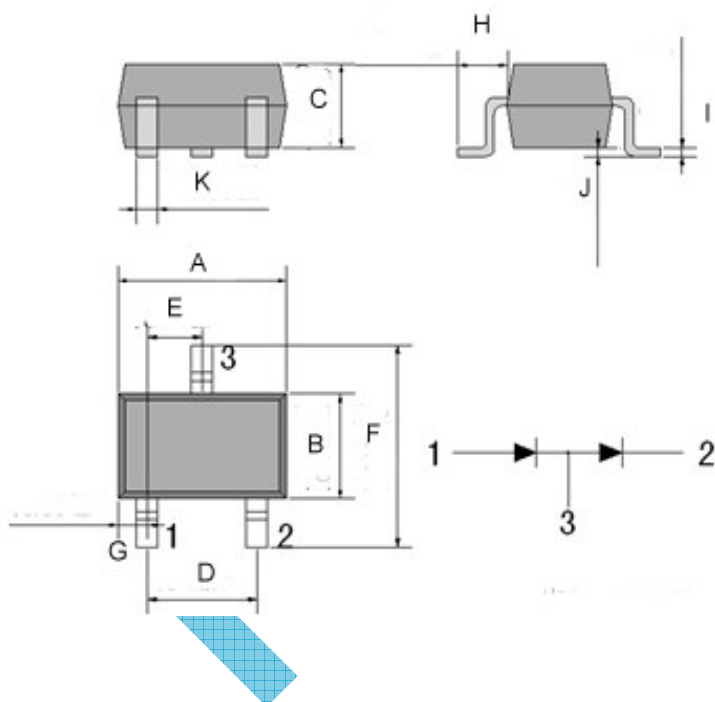
## Switching Diode

## BAV99\_

### PACKAGE OUTLINE



### DIMENSIONS



Dim	Min(mm)	Max(mm)
A	2,80	3,04
B	1,20	1,40
C	0,89	1,11
D	1,78	2,04
E	0,89	1,02
F	2,10	2,64
G	0,45	0,60
H	0,35	0,69
I	0,09	0,18
J	0,01	0,10

## SOT-23

Maximum Ratings &amp; Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

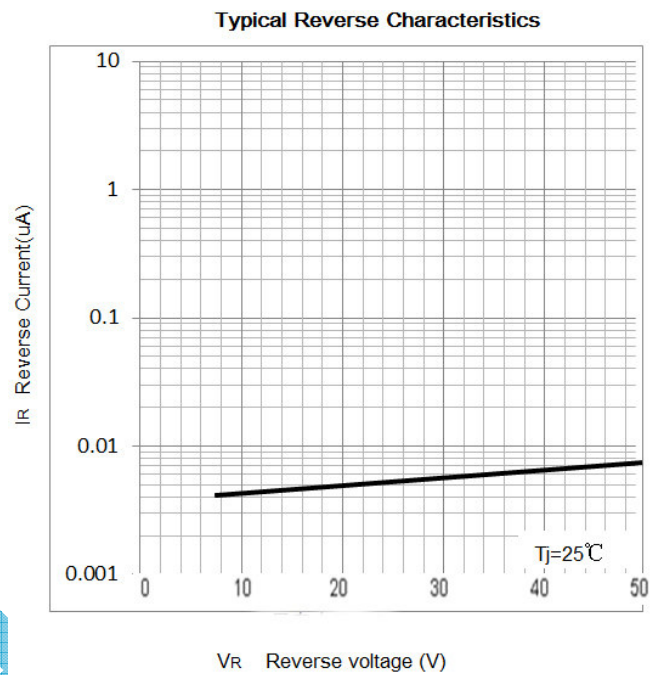
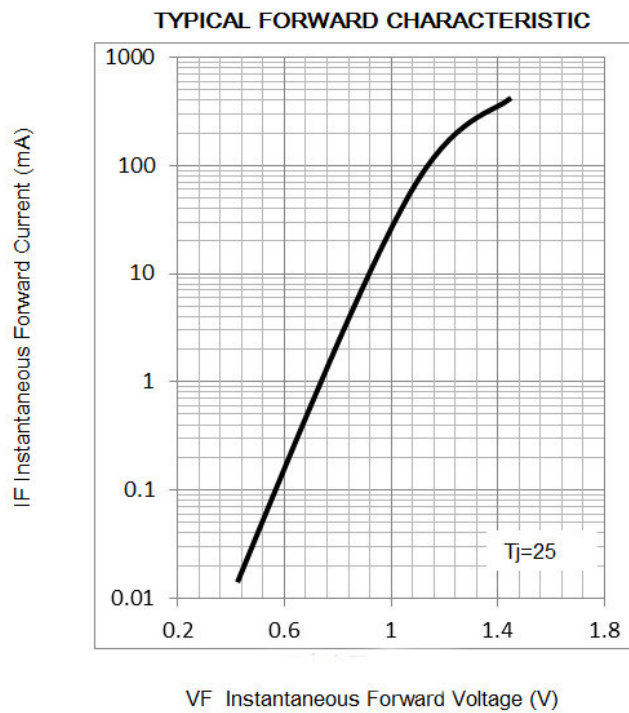
Parameter	Symbols	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RM}$	70	V
Reverse Voltage	$V_{RRM}$	70	V
Maximum Average Forward Current	$I_F (AV)$	215	mA
$t=1\mu s$ Non-repetitive Peak Forward Surge Current at 1uS	$I_{FSM}$	2	A
$I_F=50mA$ Forward Voltage	$V_{FM}$	1,0	V
$V_R=75V$ Reverse Current	$I_{RM}$	5	$\mu A$
(Note1) Junction Capacitance	$C_J$	1,5	pF
(Note2) Reverse Recovery Time	$T_{RR}$	6,0	nS
Power Dissipation	$P_D$	300	mW
Type Thermal Resistance	$R_{\theta JA}$	417	°C /W
Operating Junction and Storage Temperature Range	$T_J \cdot T_{STG}$	-65 --- +150	°C

Note:

1)  $C_J$  at  $V_R=0, f=1,0MHz$ 2)  $I_F=10mA$  to  $I_R=1,0Ma, V_R=6,0V, R_L=100 \Omega$  ;

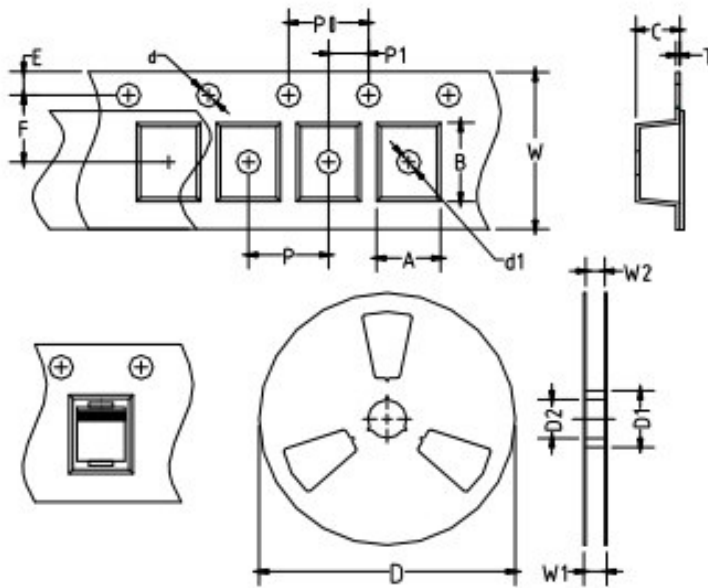
## SOT-23

Characteristics(Typical)



## SOT-23

Size (Unit:mm)

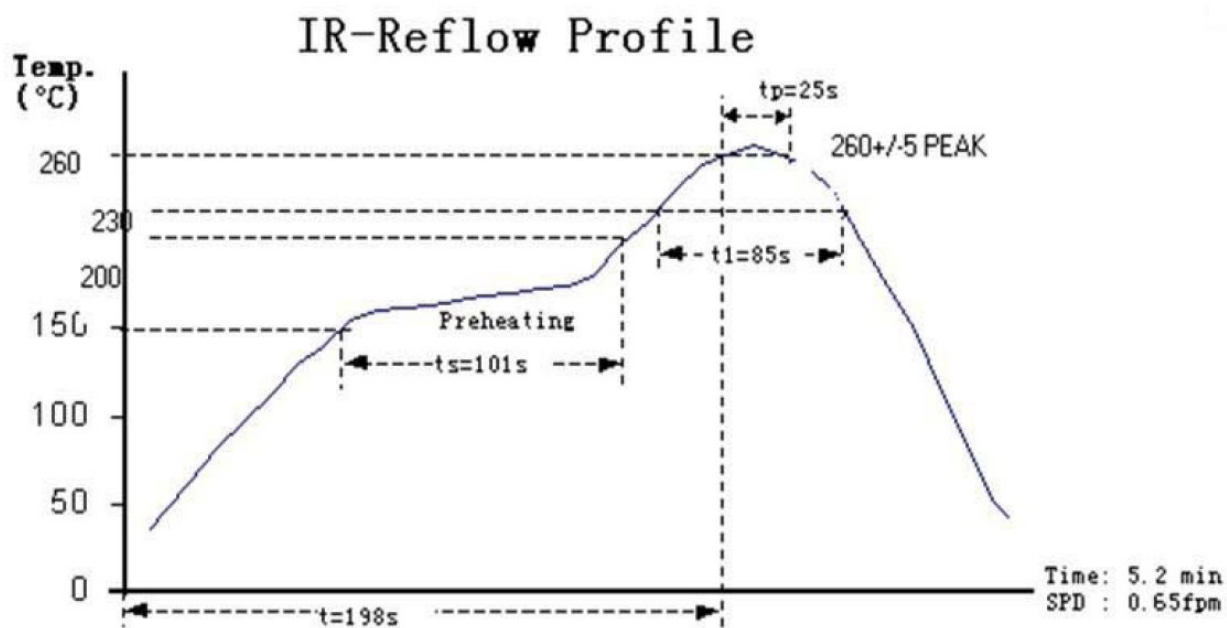


Item	Symbol	SOT-23
Carrier width	A	3.15±0.10
Carrier length	B	2.77±0.10
Carrier depth	C	1.22±0.10
Sprocket hole	d	1.50±0.10
Carrier hole	d1	1.00±0.10
Reel outside diameter	D	177.8±1.0
Reel inner diameter	D1	50±1.0
Feed hole diameter	D2	13.0±1.0
Sprocket hole position	E	1.75±0.10
Punch hole position	F	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	11.4±1.5
Reel width	W2	9.4±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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Published by FrelTec® GmbH

Mathildenstr. 10A; 82319 Starnberg; Germany

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