

BAV23A/C/S

Rev.H Nov.-2023

/ Descriptions

Silicon Diode in a SOT-23 Plastic Package.

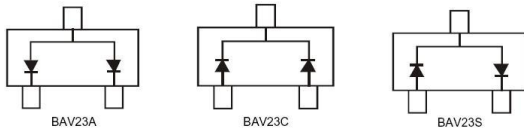
/ Features

Small signal diode, HF Product.

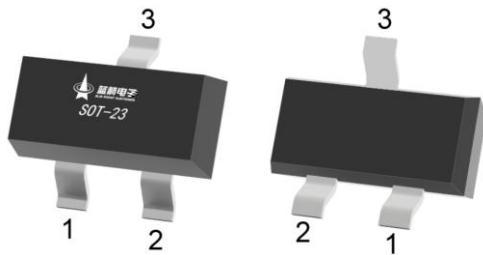
/ Applications

Switching speed, general-purpose switching applications, high conductivity.

/ Equivalent Circuit



/ Pinning



PIN: See Equivalent Circuit.

/ Marking

Model	BAV23A	BAV23C	BAV23S
Marking	HT7	HT6	HT5

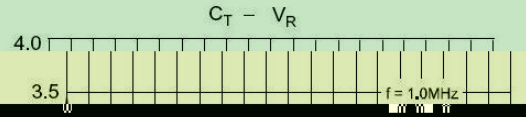
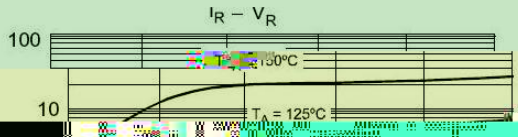
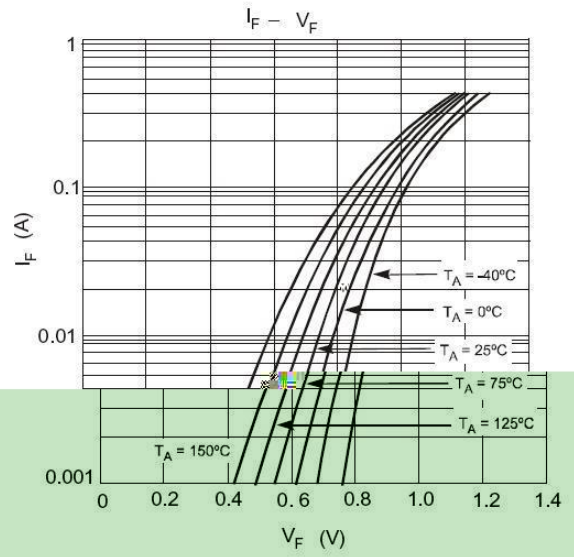
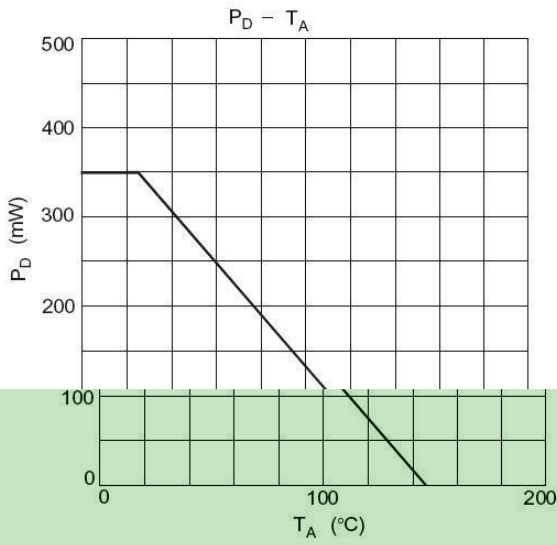
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Repetitive Reverse Voltage	V_{RRM}	250	V
Reverse Voltage	V_R	200	V
Working Peak Reverse Voltage	V_{RWM}		
RMS Reverse Voltage	$V_{R(RMS)}$	141	V
Average Rectified Forward Current	I_{FM}	400	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM(1)}$ (pulse width=1.0 uS)	9.0	A
	$I_{FSM(2)}$ (pulse width=100uS)	3.0	A
	$I_{FSM(3)}$ (pulse width=10ms)	1.7	A
Repetitive Peak Forward Surge Current	I_{FRM}	625	mA
Power Dissipation	P_D	350	mW
Thermal Resistance, Junction to Ambient	R	357	/W
Junction and Storage Temperature Range	T_j, T_{stg}	-65 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_R	I_R	250			V
Forward Voltage	V_F	$I_F=100mA$			1.0	V
		$I_F=200mA$			1.25	V
Instantaneous Reverse Current	I_R	$T_J=25$			100	nA
		$T_J=150$			100	
Total Capacitance	C_T	$V_R=0$ $f=1.0MHz$			5.0	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=30mA$ $I_{RR}=0.1 \times I_R$ $R_L=100$			50	ns

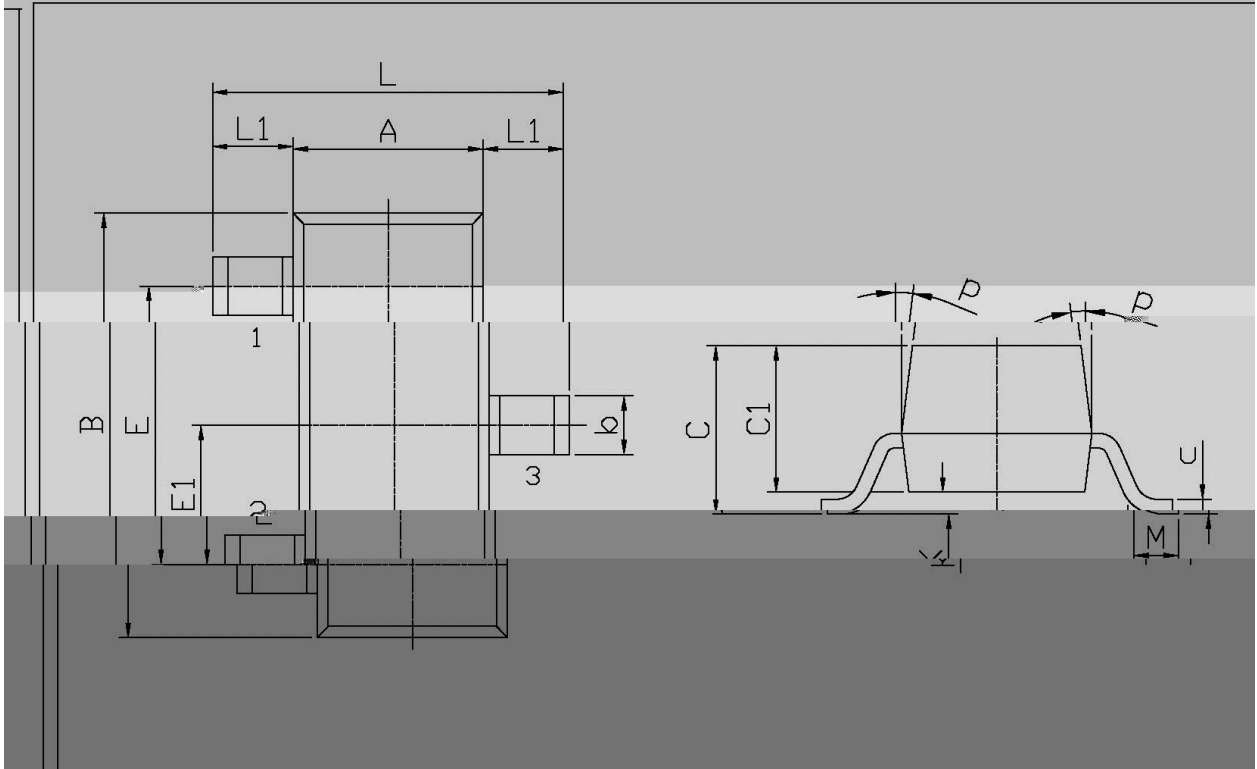
/ Electrical Characteristic Curve



/ Package Dimensions

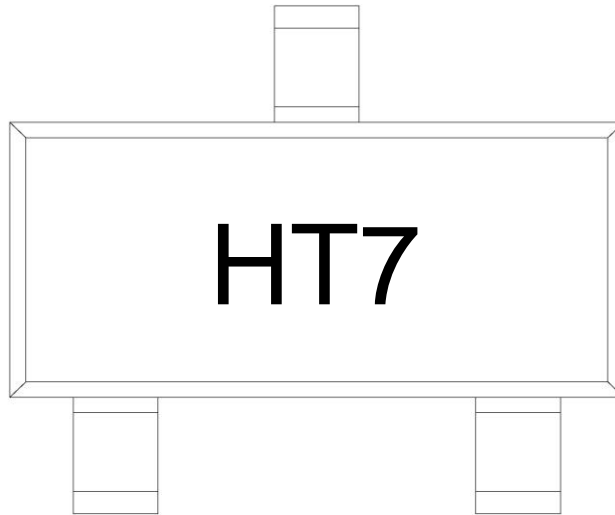
SOT-23

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	1.45	1.65	C1	0.95	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			

/ Marking Instructions



Note:

H: Company Code

T7: Product Type Code

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Note:

- | | | | |
|---|---------|-----------|---|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245 5 | 5 0.5sec; | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 | 2 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL 3

Package Type 封装形式	Units Units	Units 包装数量	Dimension 包装尺寸 (unit: mm ³)
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