



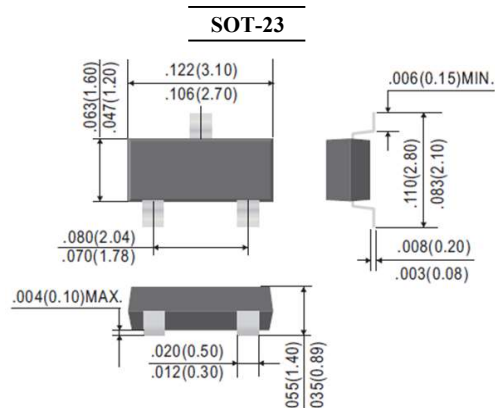
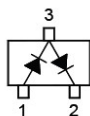
BAV99

FAST SWITCHING DIODES

REVERSE VOLTAGE: 75 VOLTS
POWER DISSIPATION: 225 mWATTS

FEATURES

- Fast Switching Speed
- High Conductance
- Suffix "H" indicates Halogen-free parts, ex. BAV99H



Dimensions in inch and (millimeter)

Maximum Ratings@ $T_A=25\text{ }^\circ\text{C}$

Parameter	Symbol	Value	Unit	
Reverse Voltage	V_R	75	V	
Continuous Forward Current	I_F	215	mA	
Single Diode Load		125		
Non-repetitive Peak Forward Surge Current	I_{FSM}	0.5	A	
		at $t=1\text{ms}$		1.0
		at $t=1\mu\text{s}$		2.0
Power Dissipation	P_D	225	mW	
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	556	$^\circ\text{C/W}$	
Junction Temperature	T_J	150	$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$	

Electrical Characteristics@ $T_A=25\text{ }^\circ\text{C}$

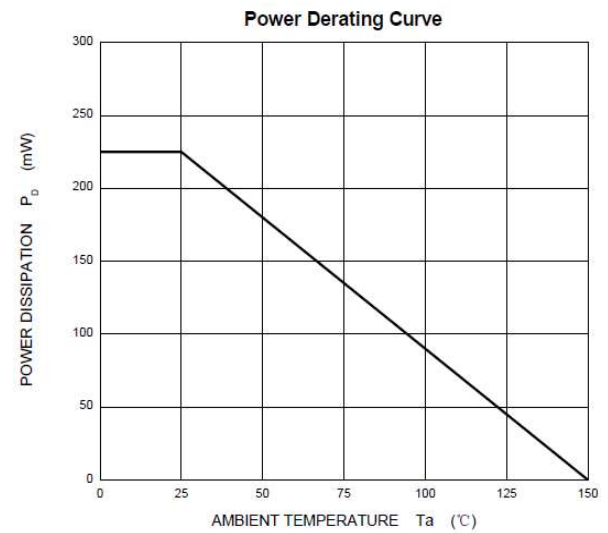
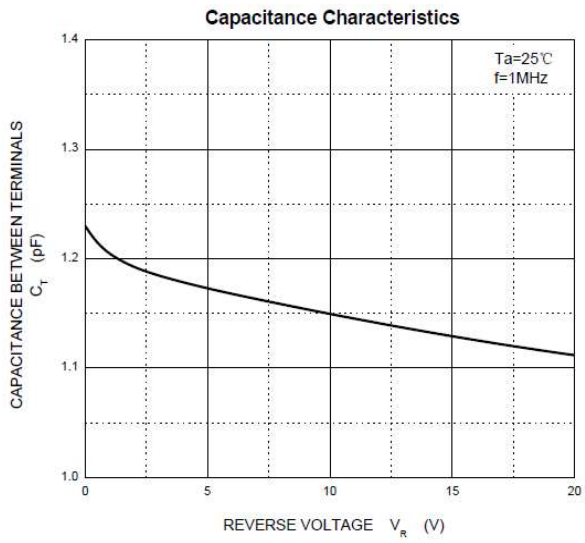
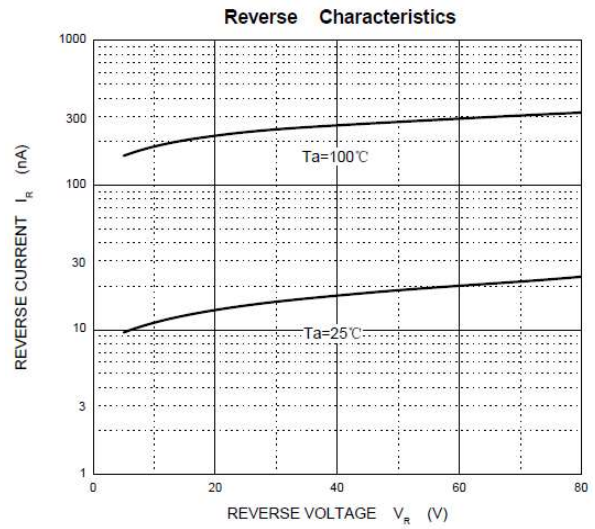
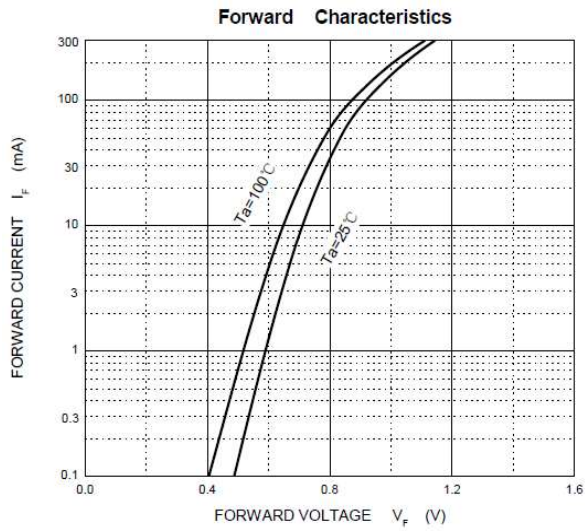
Parameter	Conditions	Symbol	Min	Max	Unit
Reverse Breakdown Voltage	$I_R=100\mu\text{A}$	V_R	75	-	V
Forward Voltage	$I_F=1\text{mA}$	V_F	-	715	mV
	$I_F=10\text{mA}$		-	855	
	$I_F=50\text{mA}$		-	1000	
	$I_F=150\text{mA}$		-	1250	
Reverse current	$V_R=20\text{V}, T_J=25\text{ }^\circ\text{C}$	I_R	-	0.03	μA
	$V_R=75\text{V}, T_J=25\text{ }^\circ\text{C}$		-	2.5	
	$V_R=25\text{V}, T_J=150\text{ }^\circ\text{C}$		-	30	
	$V_R=75\text{V}, T_J=150\text{ }^\circ\text{C}$		-	50	
Typical Junction Measured at Capacitance	$V_R=0, f=1\text{MHz}$	C_J	-	1.5	pF
Reverse Recovery Time	$I_F=I_R=10\text{mA}$, $I_{tr}=0.1xI_R, R_L=100\Omega$	t_{rr}	-	6	nS



BAV99

FAST SWITCHING DIODES

Typical Characteristics

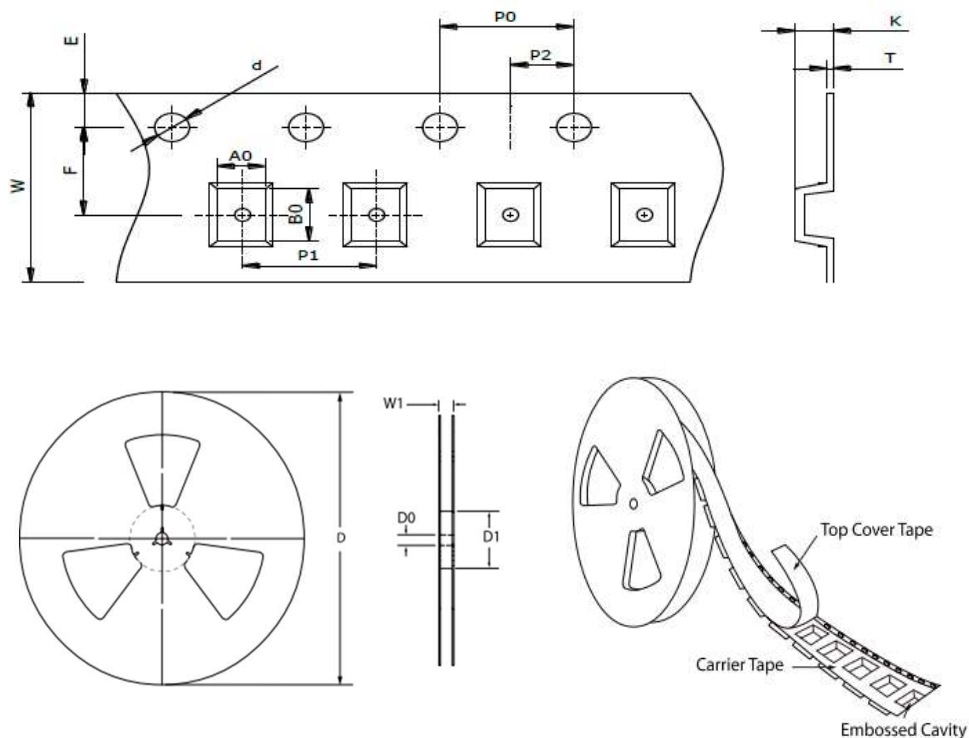




BAV99

FAST SWITCHING DIODES

TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A ₀	3.20 ± 0.10
Carrier length	B ₀	2.90 ± 0.10
Carrier depth	K	1.50 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D ₀	13.00 ± 0.50
Reel inner diameter	D ₁	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P ₀	4.00 ± 0.10
Punch hole pitch	P ₁	4.00 ± 0.10
Embossment center	P ₂	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W ₁	MAX. 14.50

ORDER INFORMATION

Package	Reel Size	Quantity
SOT-23	7"	3,000

MARKING CODE

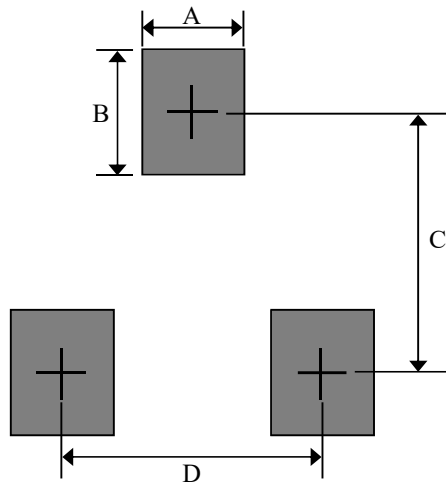
Part Number	Marking Code
BAV99	A7



BAV99

FAST SWITCHING DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D
SOT-23	0.80	1.00	2.40	1.90