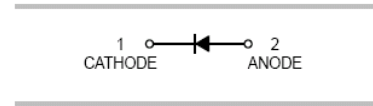




### FEATURES

- Fast switching speed:  $t_{rr} = 4\text{ns}$ (Typ.)
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance



### APPLICATIONS

- Surface mount fast switching diode

**SOD-123**

### ORDERING INFORMATION

Type No.	Marking	Package Code
BAV16W	T6	SOD-123

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Reverse Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	$I_o$	150	mA
Non-Repetitive Peak Forward Surge Current @ $t=1.0\ \mu\text{s}$ @ $t=1.0\ \text{s}$	$I_{FSM}$	2.0 1.0	A
Power Dissipation	$P_D$	350	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	375	$^\circ\text{C/W}$
Thermal resistance junction to Lead	$R_{\theta JL}$	228	$^\circ\text{C/W}$
Thermal resistance junction to Case	$R_{\theta JC}$	234	$^\circ\text{C/W}$
Junction temperature	$T_j$	-65 to +150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-65 to +150	$^\circ\text{C}$


**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	V	$I_R=1.0\mu A$
Forward Voltage	$V_F$		0.715 0.855 1.0 1.25	V	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$
Reverse Current	$I_R$	-	1.0 25	$\mu A$ nA	$V_R=75V$ $V_R=20V$
Capacitance between terminals	$C_T$	-	2.0	pF	$V_R=0, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	-	4.0	ns	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

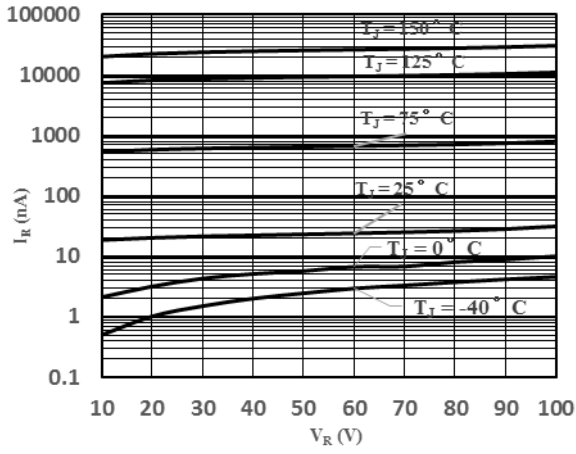


Fig 1 Typical Reverse Characteristic

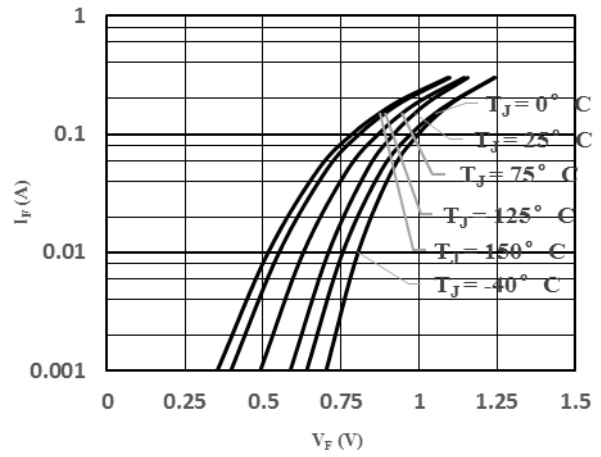


Fig 2 Typical Forward Characteristics

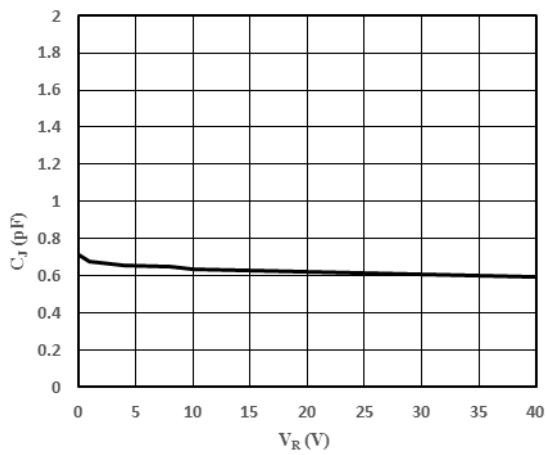
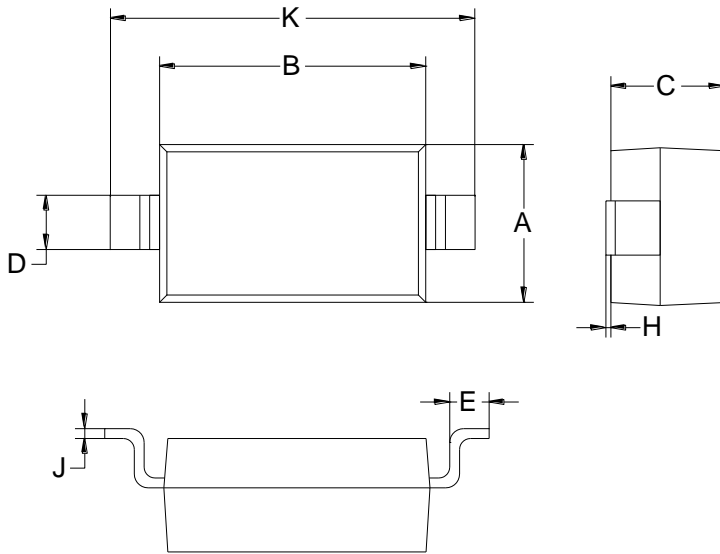


Fig 3 Capacitance vs. Reverse Voltage

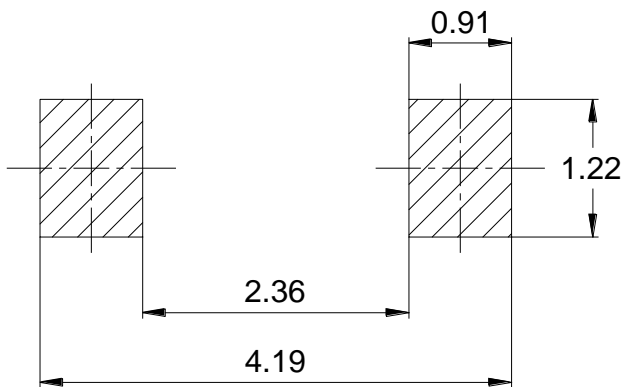
## PACKAGE OUTLINE

Plastic surface mounted package



SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1	1.3
D	0.5	0.6
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85
All Dimensions in mm		

## SOLDERING FOOTPRINT



Unit: mm

## PACKAGE INFORMATION

Device	Package	Shipping
BAV16W	SOD-123	3000pcs / Tape & Reel