

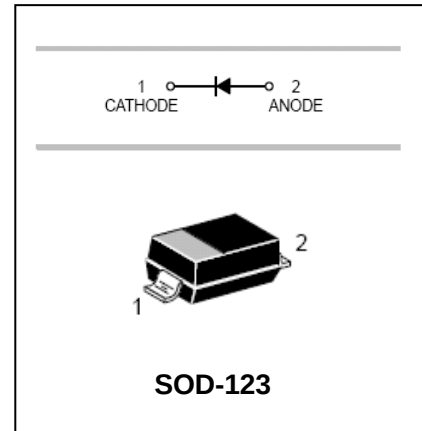
Silicon Epitaxial Planar Diode

TBAV16W

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
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



APPLICATIONS

- Surface mount fast switching diode

ORDERING INFORMATION

Type No.	Marking	Package Code
TBAV16W	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	$^\circ\text{C}$

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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	μA 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	$I_F=I_R=10mA$, $I_{rr}=0.1 \times I_R, R_L=100\Omega$

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

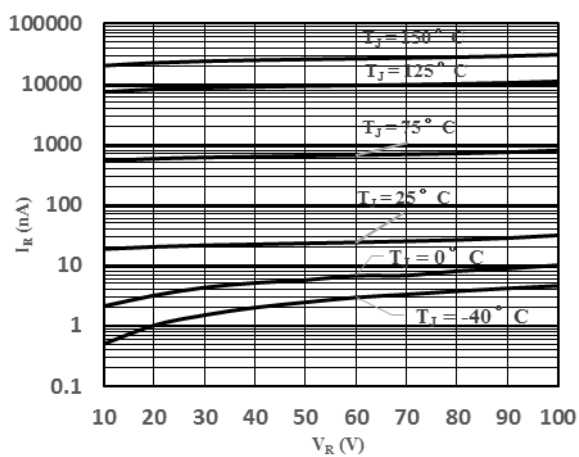


Fig 1 Typical Reverse Characteristic

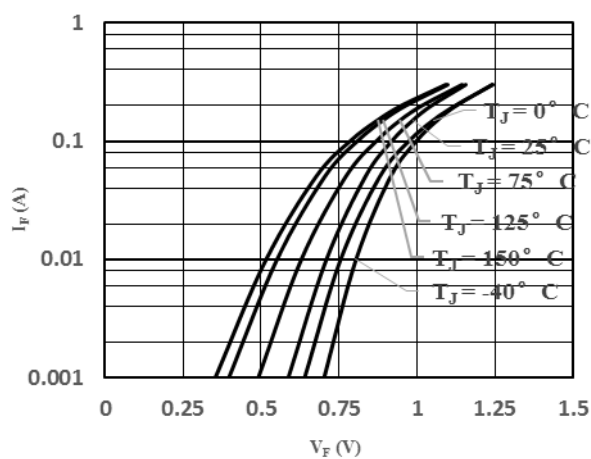


Fig 2 Typical Forward Characteristics

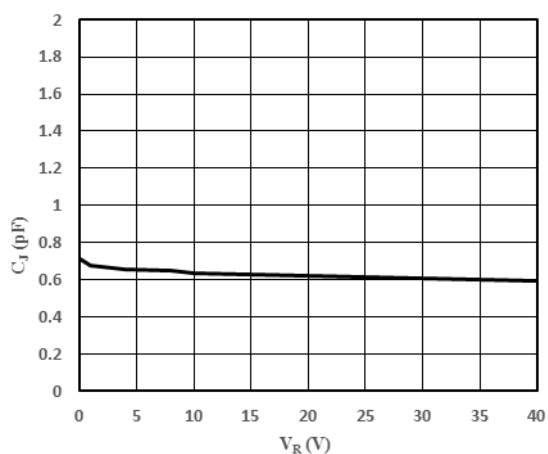


Fig 3 Capacitance vs. Reverse Voltage

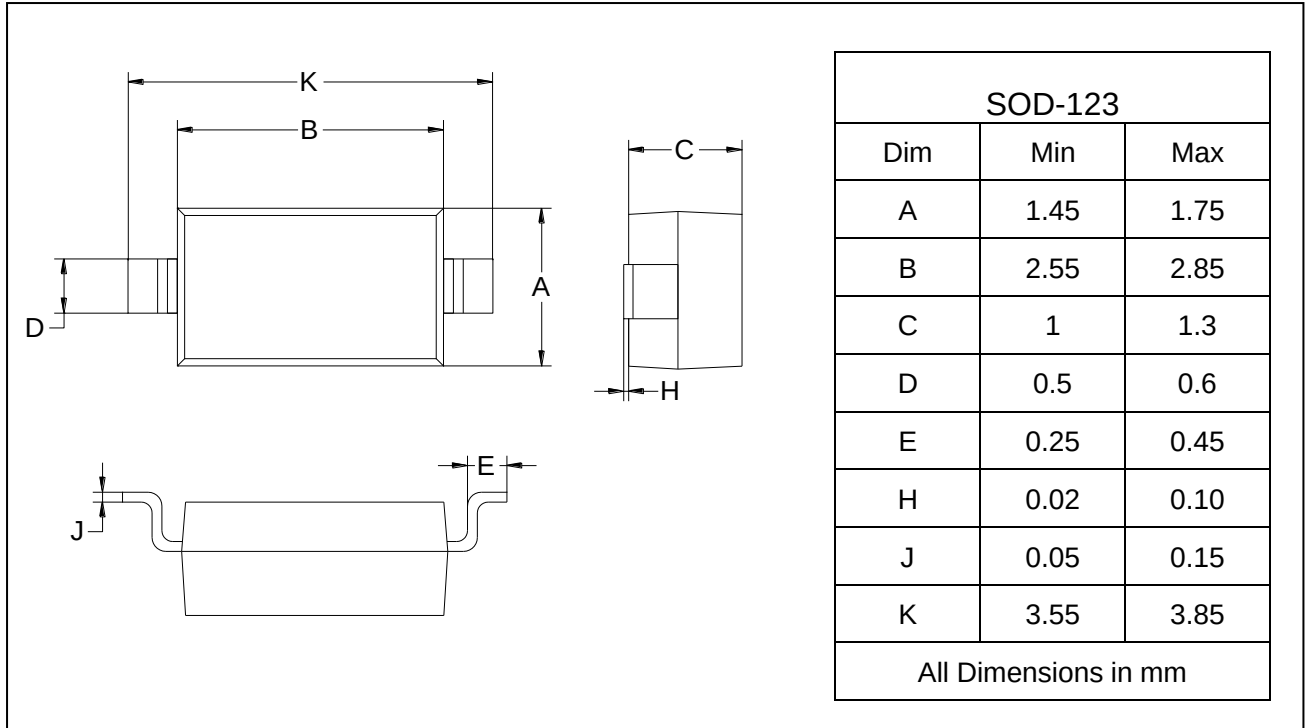
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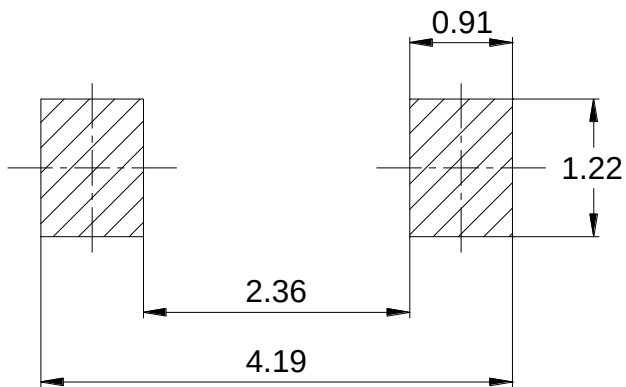
PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
TBAV16W	SOD-123	3000pcs / Tape & Reel