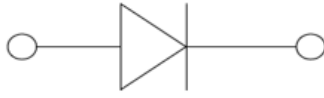


High Speed Switching Diode



SOD123

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{RRM} 100V
- I_{FAV} 300mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- Extreme fast switches

Mechanical Data

- **Case:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** T4

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Repetitive Peak Reverse Voltage	V_{RRM}	V		100
Average Forward Current	I_{FAV}	mA		300
Peak Forward Surge Current	I_{FSM}	A	Pulse width=1 us Pulse width=1 s	2 0.5
Power Dissipation	P_{tot}	mW		350
Thermal Resistance Junction to Ambient	R_{thJA}	K/W		315
Junction Temperature	T_j	$^\circ\text{C}$		-55 to +150
Storage Temperature Range	T_{stg}	$^\circ\text{C}$		-55 to +150

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	V_F	V	$I_F=1\text{mA}$		0.715
			$I_F=10\text{mA}$		0.855
			$I_F=50\text{mA}$		1.0
			$I_F=150\text{mA}$		1.25
Reverse Current	I_R	μA	$V_R=75\text{V}$		1.0
Breakdown Voltage	V_R	V	$I_R=100\mu\text{A}$	75	
Junction Capacitance	C_j	pF	$V_R=V_F=0\text{V}$, $f=1\text{MHz}$		4
Reverse Recovery Time	t_{rr}	ns	$I_F=10\text{mA}$, $I_{rr}=0.1I_R$, $R_L=100\Omega$		6

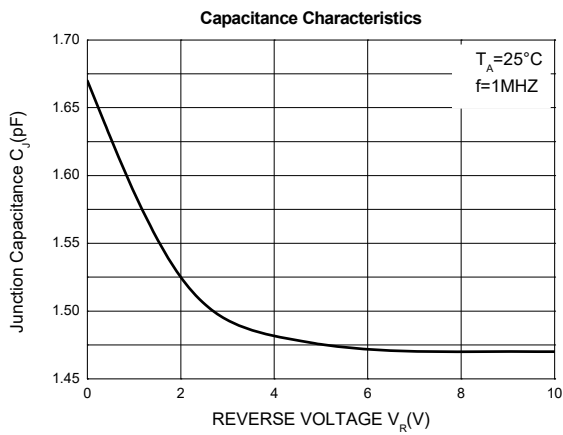
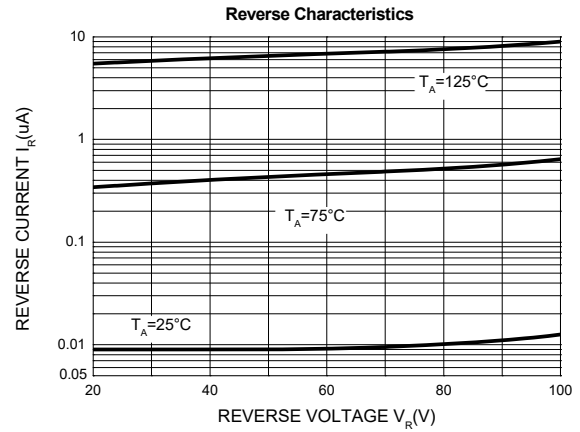
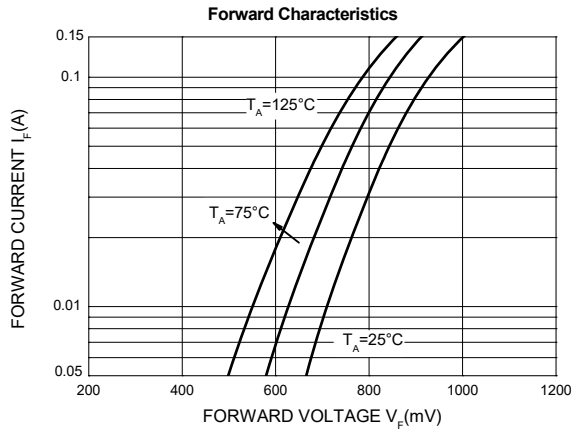


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Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS16WQ	F2	Approximate 0.010	3000	30000	120000	7" reel

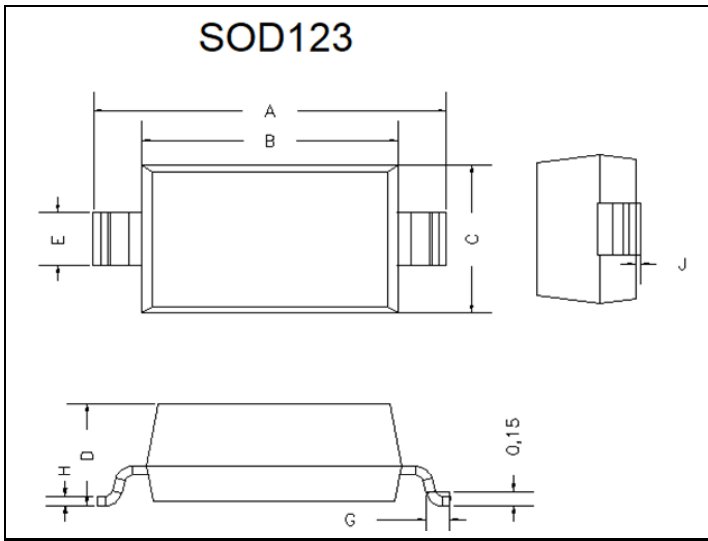
Characteristics (Typical)





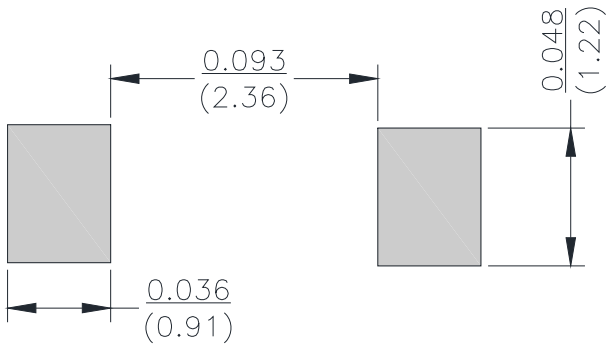
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■ Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	-	0.053	-	1.35	
E	0.012	0.031	0.30	0.78	
G	0.006	-	0.15	-	
H	-	0.010	-	0.25	
J	-	0.006	-	0.15	

■ Soldering Footprint



Unit: $\frac{\text{inch}}{\text{mm}}$



BAS16WQ

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