

Small-Signal Fast Switching Diodes



Features

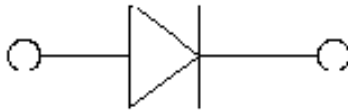
- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_R 100V
- I_{FAV} 200mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Typical Applications

- Low-Leakage
- Automotive

Mechanical Data

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



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

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		85
Reverse voltage	V_R	V		100
Peak forward surge current	I_{FSM}	A	Non-Repetitive $t = 1 \mu\text{s}$	4
Average forward current	I_{FAV}	mA		200
Power dissipation	P_{tot}	mW		250
Thermal Resistance Junction to Ambient	R_{thJA}	$^\circ\text{C}/\text{W}$		500
Maximum 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.	TPY.	MAX.
Forward Voltage	V_F	mV	$I_F = 1\text{mA}$			900
			$I_F = 10\text{mA}$			1000
			$I_F = 50\text{mA}$			1100
			$I_F = 150\text{mA}$			1250
Reverse Current	I_R	nA	$V_R = 75\text{V}$			5
Reverse Breakdown Voltage	V_{BR}	V	$I_R = 100\mu\text{A}$	100		
Junction Capacitance	C_j	pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$			4
Reverse Recovery Time	t_{rr}	μs	$I_F = I_R = 10\text{mA}$, $I_{rr} = 0.1I_R$, $R_L = 100\Omega$			3



BAV116WQ

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV116WQ	F2	Approximate 0.011	3000	30000	120000	7" reel

Characteristics (Typical)

Fig.1: P_D-T_A

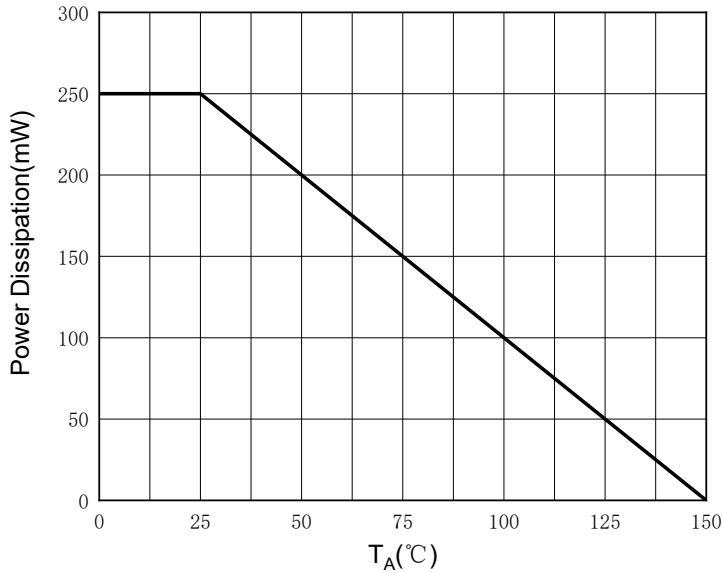


Fig.2: Forward Characteristics

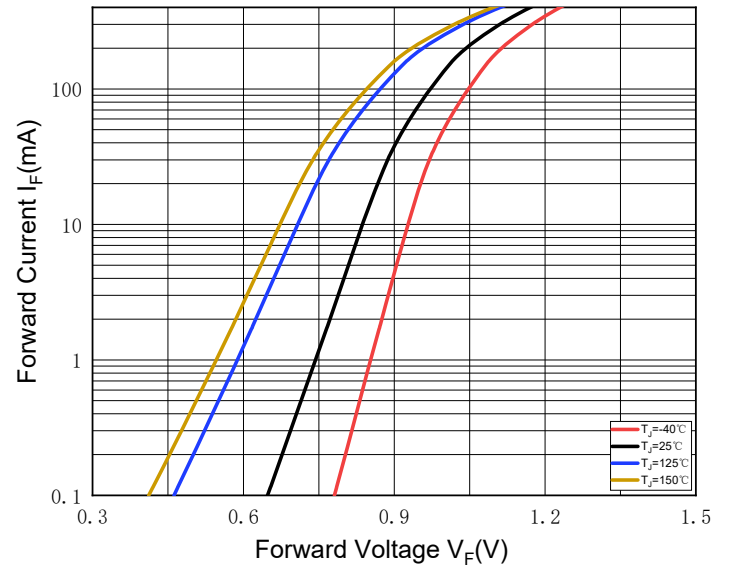


Fig.3: Reverse Characteristics

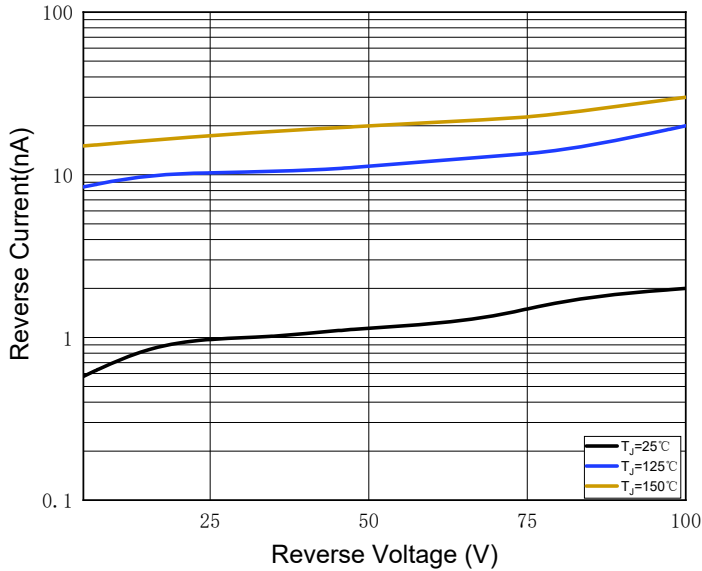
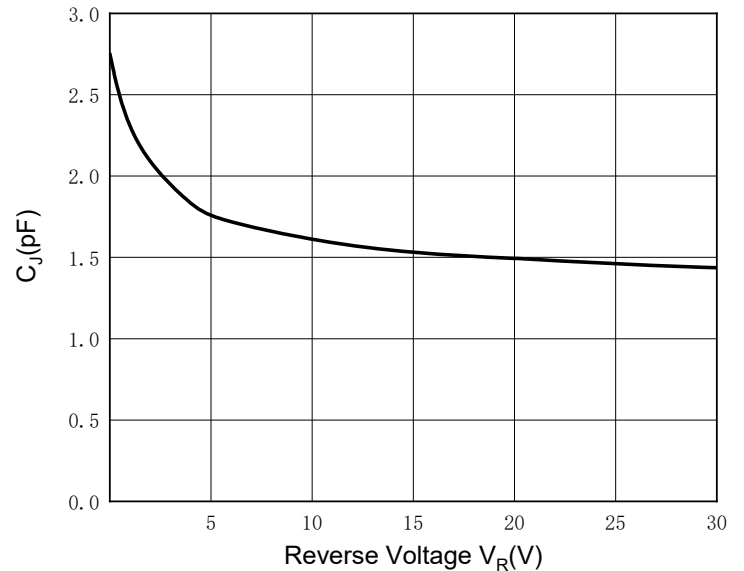


Fig.4: Capacitance Characteristics

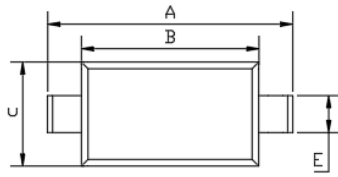




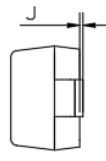
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■ Outline Dimensions

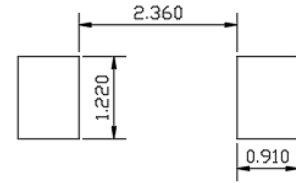
SOD-123



TOP VIEW

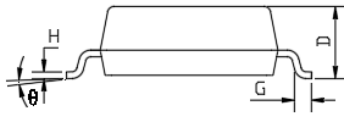


SIDE VIEW



UNIT : mm

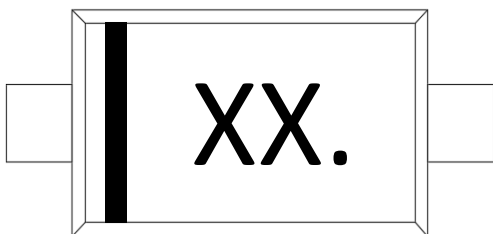
SUGGESTED SOLDER PAD LAYOUT



SIDE VIEW

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
G	0.006	0.018	0.150	0.450
H	0.003	0.010	0.080	0.250
J	0.000	0.006	0.000	0.150
θ	0	8°	0	8°

■ Marking Information



Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black



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Disclaimer

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