

High Speed Switching Diode



SOD-323



Features

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

Applications

- Low-Leakage
- Automotive

Mechanical Data

- **Case:** SOD-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** D4

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Reverse Breakdown Voltage	V_{BR}	V		100
Average Forward Current	I_{FAV}	mA		200
Non-Repetitive Peak Forward Surge Current	I_{FSM}	A	$t_p=1\text{ us}$	4
Power Dissipation	P_D	mW		250
Thermal Resistance Junction to Ambient	R_{thJA}	$^\circ\text{C}/\text{W}$		500
Maximum Junction Temperature	T_j	$^\circ\text{C}$		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

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS416Q	F2	Approximate 0.0045	3000	30000	120000	7" reel

■ Characteristics (Typical)

Fig.1: P_D - T_A

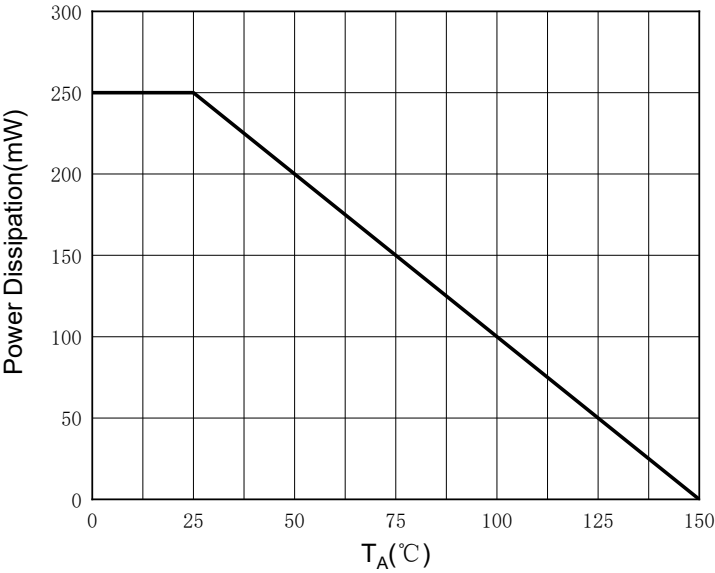


Fig.2: Forward Characteristics

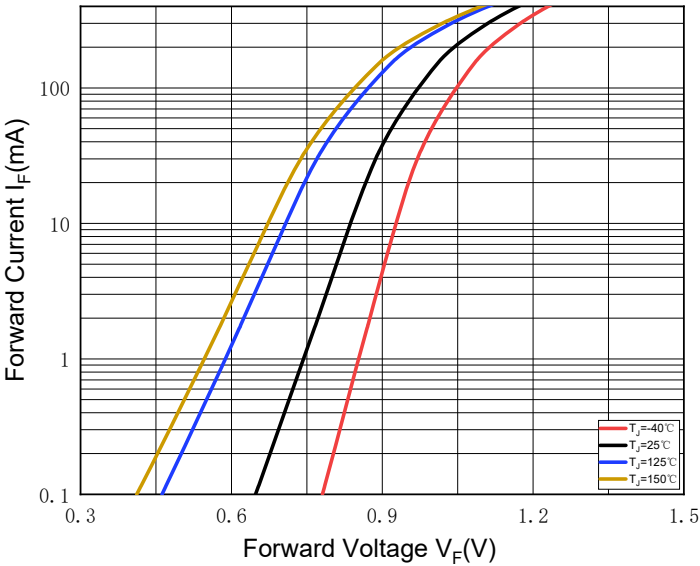


Fig.3: Reverse Characteristics

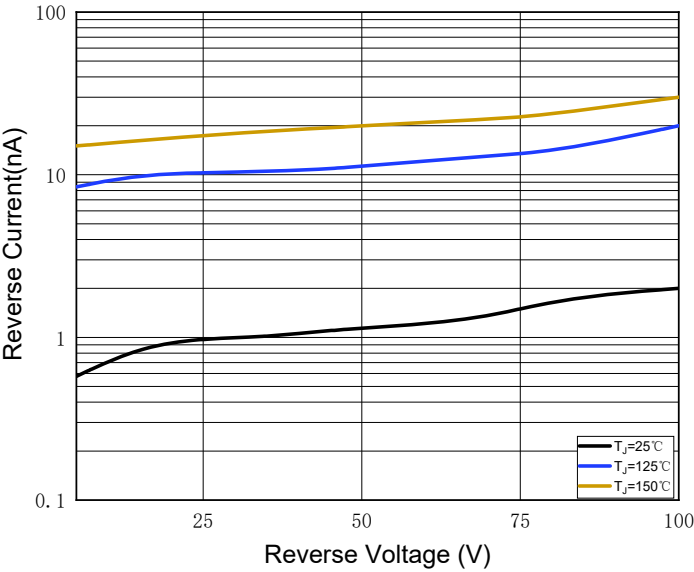
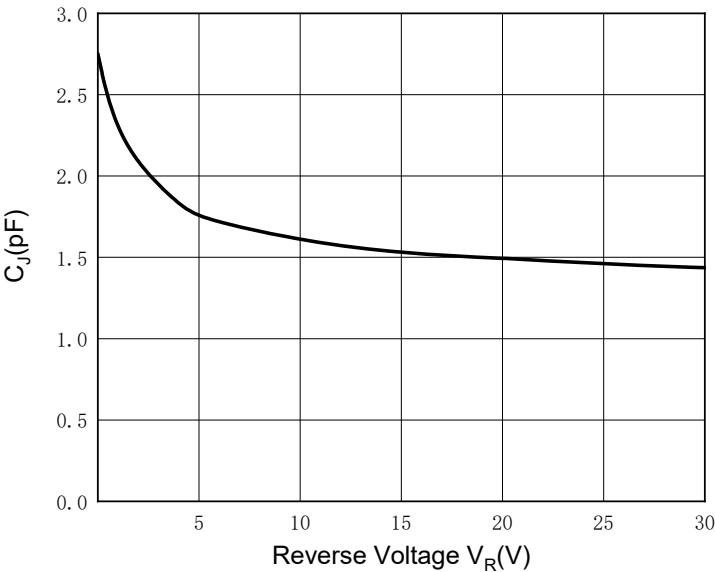
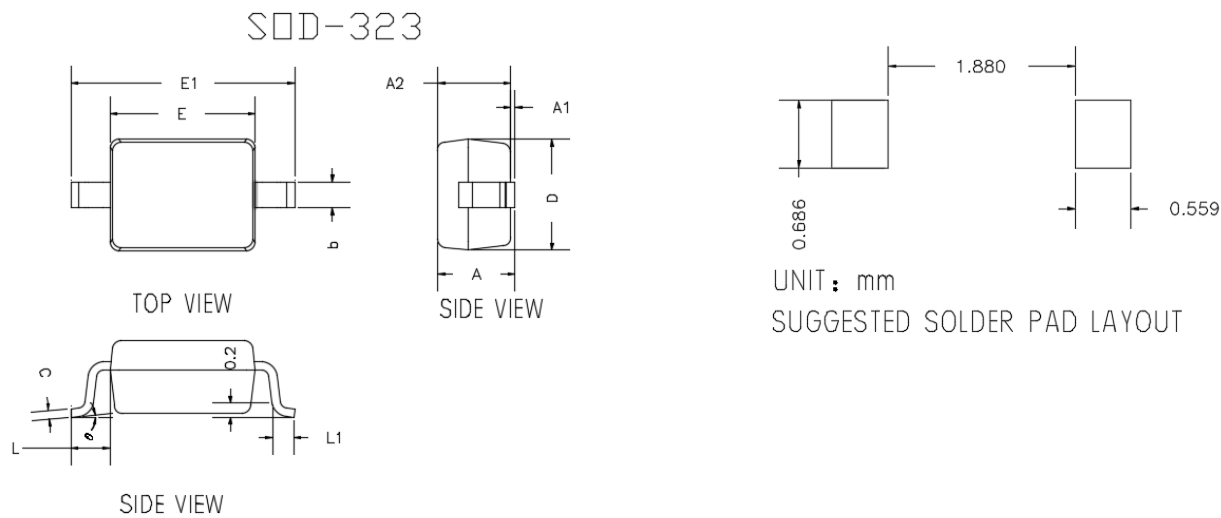


Fig.4: Capacitance Characteristics



■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
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

Disclaimer

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