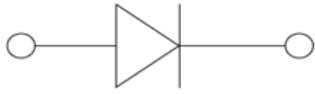




Small Signal Schottky Diode

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- For Surface Mount Application
- V_{RRM} 40V/30V/20V
- I_{FAV} 0.3A
- Part no. with suffix "Q" means AEC-Q101 qualified

**SOD323**

Mechanical Data

- **Case:** SOD323
- **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		SD103AWSHQ	40
				SD103BWSHQ	30
				SD103CWSHQ	20
Average Forward Current	I_{FAV}	A		0.3	
Peak Forward Surge Current	I_{FSM}	A	8.3ms, half sine	3	
Power Dissipation	P_D	mW		200	
Thermal Resistance Junction to Ambient	R_{thJA}	$^{\circ}\text{C}/\text{W}$		500	
Junction Temperature	T_J	$^{\circ}\text{C}$		-55 to +125	
Storage Temperature Range	T_{stg}	$^{\circ}\text{C}$		-55 to +125	



SD103AWSHQ & SD103BWSHQ & SD103CWSHQ

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	PART	MIN	Typ	MAX
Forward Voltage	V _F	V	I _F =1mA				0.28
			I _F =10mA				0.35
			I _F =20mA				0.37
			I _F =100mA				0.48
			I _F =200mA				0.6
Reverse Current Leakage	I _R	uA	V _R =30V	SD103AWSHQ			5
			V _R =20V	SD103BWSHQ			5
			V _R =10V	SD103CWSHQ			5
Reverse Voltage Breakdown	V _{BR}	V	I _R =100uA	SD103AWSHQ	40		
				SD103BWSHQ	30		
				SD103CWSHQ	20		
Junction Capacitance	C _J	pF	V _R =0V, f =1MHz				50
Reverse Recovery Time	t _{rr}	ns	I _F =I _R =10mA, I _{rr} =1mA, R _L =100Ω				10

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SD103AWSHQ SD103BWSHQ SD103CWSHQ	F2	Approximate 0.0045	3000	30000	120000	7" reel



■ Characteristics (Typical)

Fig.1: PD-Ta Curve

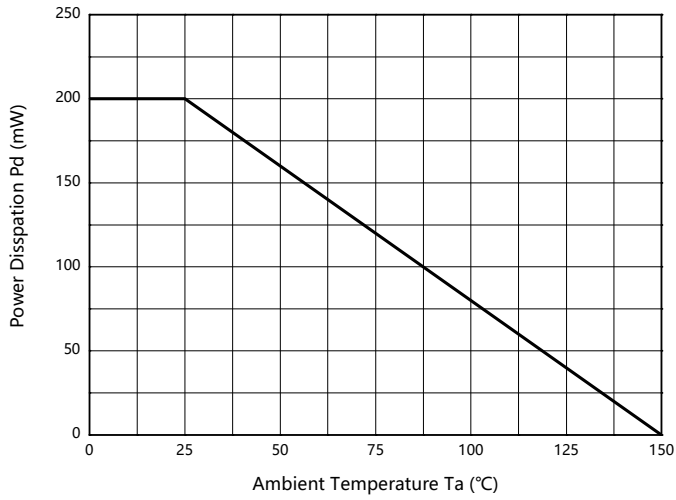


Fig.2: Capacitance Characteristics

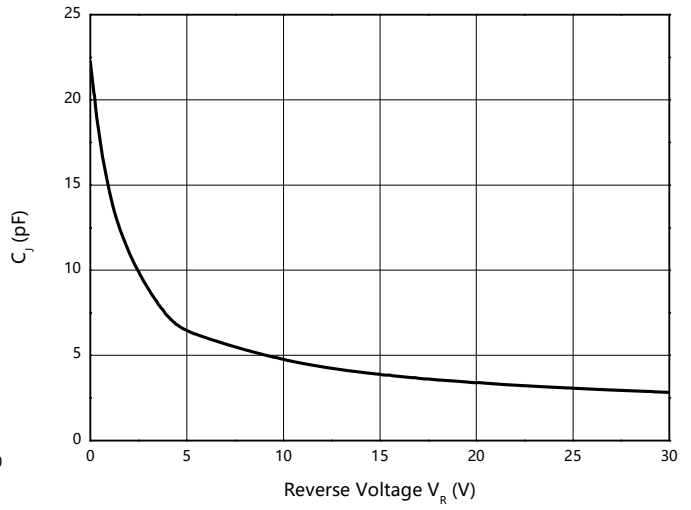


Fig.3: Forward Characteristics

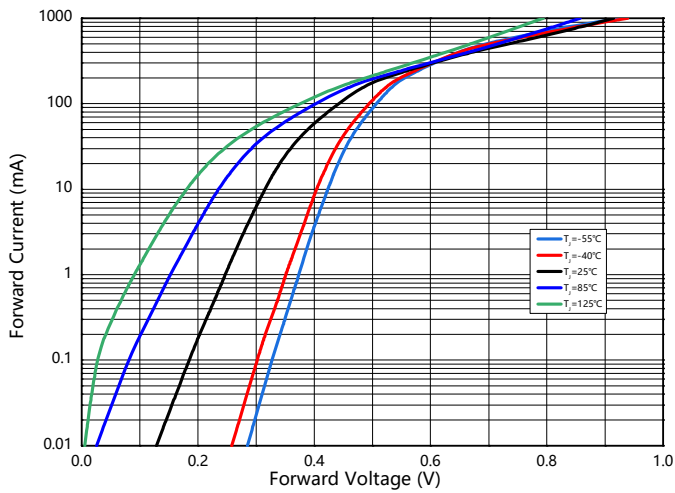
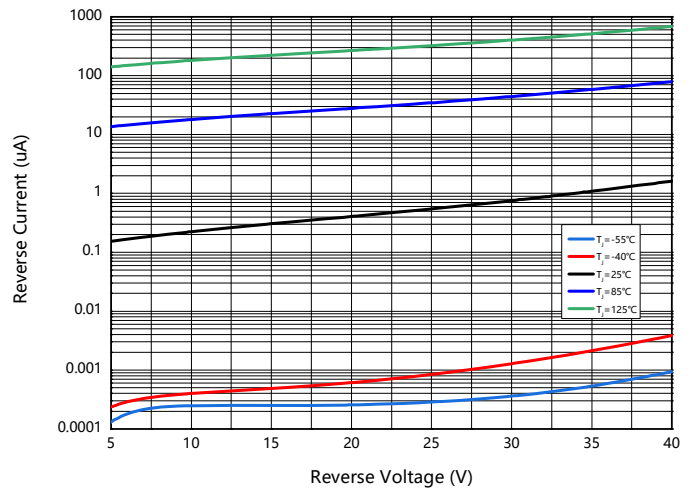


Fig.4: Reverse Characteristics

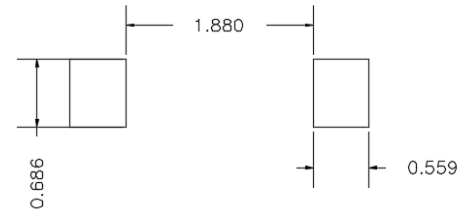
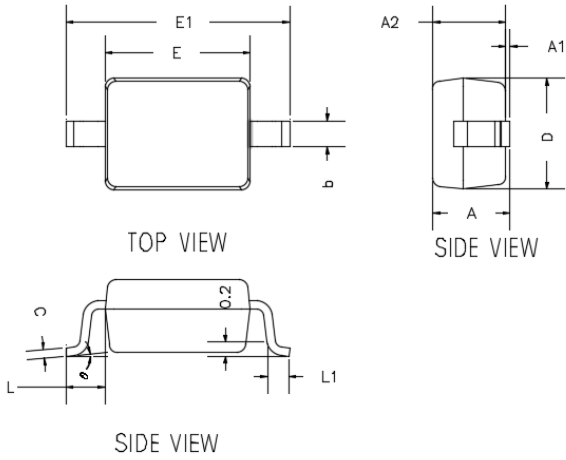




SD103AWSHQ & SD103BWSHQ & SD103CWSHQ

■ Outline Dimensions

SOD-323



UNIT: mm

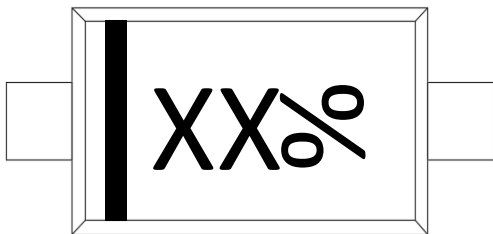
SUGGESTED SOLDER PAD LAYOUT

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
ϕ	0°	8°	0°	8°

NOTE:

1. PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
2. TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
3. THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

■ Marking Information



	Marking
SD103AWSHQ	S4
SD103BWSHQ	S5
SD103CWSHQ	S6

Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black
4. XX is Marking Code
5. % is a date code, rotated 90° counterclockwise

*Date Code vary depending upon production date



Disclaimer

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