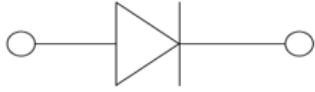




Small Signal Schottky Diode



SOD123

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{RRM} 60V/50V/40V
- I_{FAV} 0.07A
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- For Surface Mount Application
- Automotive

Mechanical Data

- **Case:** 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		SD101AWHQ	60
				SD101BWHQ	50
				SD101CWHQ	40
Average Forward Current	I_{FAV}	A		0.07	
Peak Forward Surge Current	I_{FSM}	A	8.3ms, half sine	3	
Power Dissipation	P_{tot}	mW		450	
Thermal Resistance Junction to Ambient	R_{thJA}	K/W		278	
Junction Temperature	T_J	$^{\circ}\text{C}$		-55 to +150	
Storage Temperature Range	T_{stg}	$^{\circ}\text{C}$		-55 to +150	



SD101AWHQ & SD101BWHQ & SD101CWHQ

■ 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	SD101AWHQ			0.41
				SD101BWHQ			0.4
				SD101CWHQ			0.39
			I _F =15mA				1
Reverse Leakage Current	I _R	uA	V _R =50V	SD101AWHQ			0.2
			V _R =40V	SD101BWHQ			0.2
			V _R =30V	SD101CWHQ			0.2
Reverse Breakdown Voltage	V _{BR}	V	I _R =10uA	SD101AWHQ	60		
				SD101BWHQ	50		
				SD101CWHQ	40		
Junction Capacitance	C _J	pF	V _R =1V, f=1MHz				4
Reverse Recovery Time	t _{rr}	ns	I _F =I _R =10mA, I _{rr} =1mA, R _L =100Ω			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
SD101AWHQ& SD101BWHQ& SD101CWHQ	F2	Approximate 0.010	3000	30000	120000	7" reel



SD101AWHQ & SD101BWHQ & SD101CWHQ

■ Characteristics (Typical)

Fig.1: $P_D - T_A$

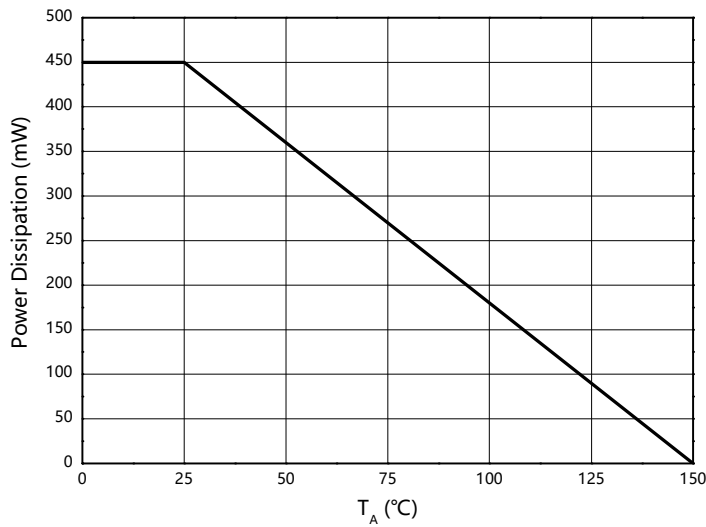


Fig.2: Capacitance Characteristics

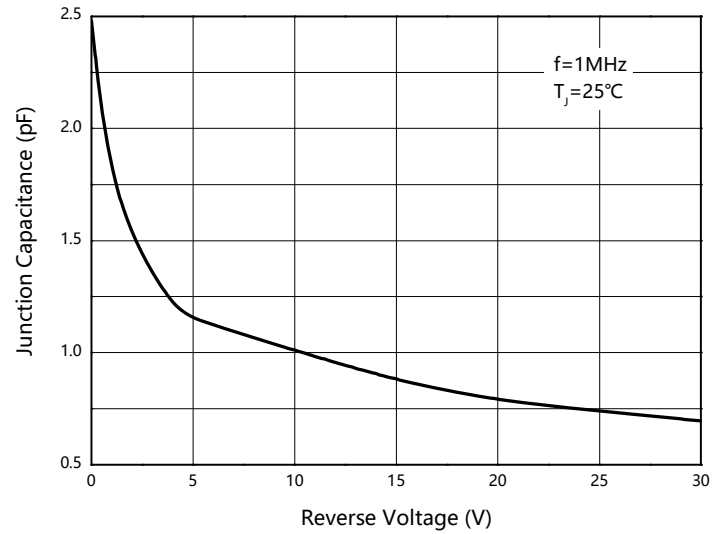


Fig.3: Forward Characteristics

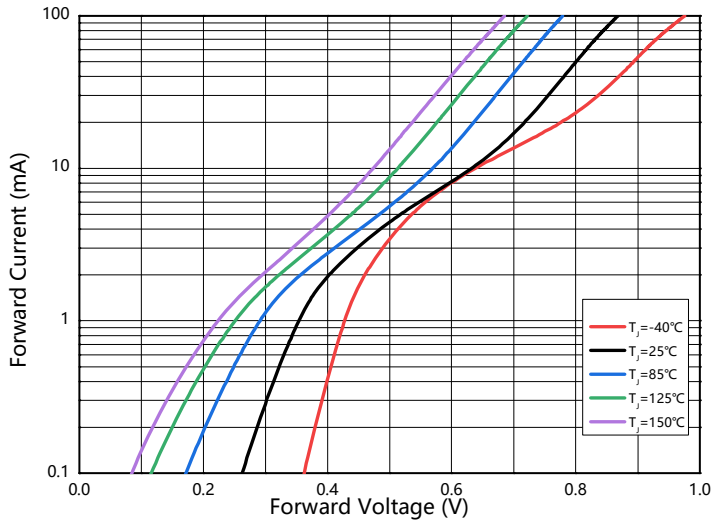
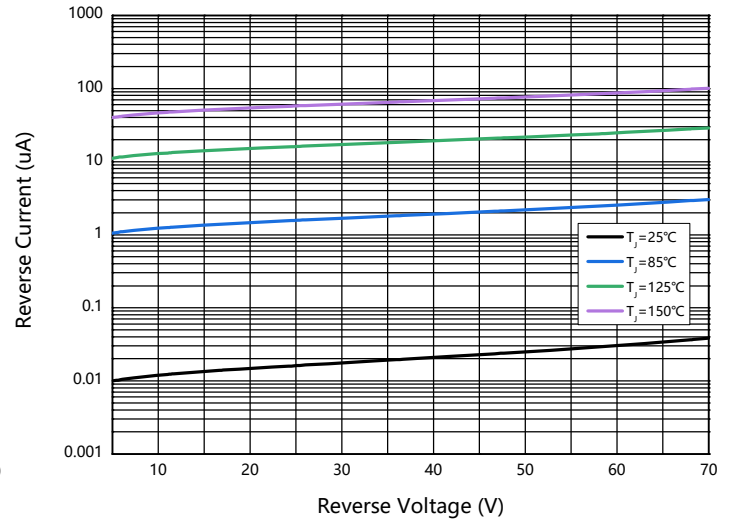


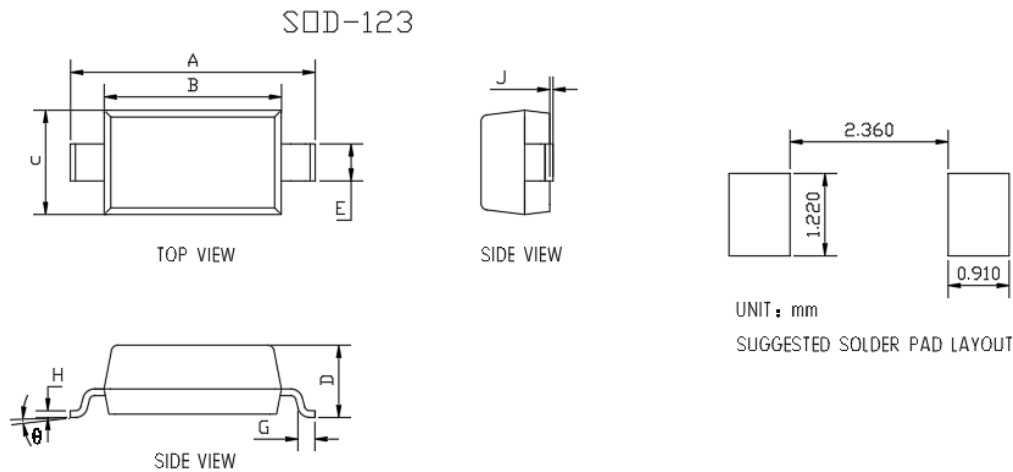
Fig.4: Reverse Characteristics





SD101AWHQ & SD101BWHQ & SD101CWHQ

■ Outline Dimensions

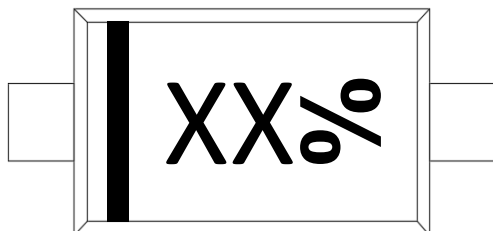


DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
G	0.006	0.018	0.150	0.450
H	0.003	0.010	0.080	0.250
J	0.000	0.006	0.000	0.150
θ	0	8°	0	8°

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
SD101AWHQ	S1
SD101BWHQ	S2
SD101CWHQ	S3

Note:

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

Date Code vary depending upon production date



SD101AWHQ & SD101BWHQ & SD101CWHQ

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