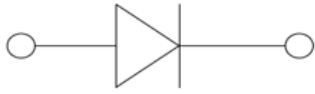


Small Signal Schottky Diode



SOD123

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{RRM} 40V/30V/20V
- I_{FAV} 0.35A
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- For general purpose applications
- 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		SD103AWHQ	40
				SD103BWHQ	30
				SD103CWHQ	20
Average Forward Current	I_{FAV}	A		0.35	
Peak Forward Surge Current	I_{FSM}	A	8.3ms, half sine	3	
Power Dissipation	P_{tot}	mW		400	
Thermal Resistance Junction to Ambient	R_{thJA}	K/W		250	
Junction Temperature	T_J	$^{\circ}\text{C}$		-55 to +125	
Storage Temperature Range	T_{stg}	$^{\circ}\text{C}$		-55 to +125	



SD103AWHQ / SD103BWHQ / SD103CWHQ

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	PART	MIN	MAX
Forward Voltage	V _F	V	I _F =20mA			0.37
			I _F =200mA			0.6
Reverse Leakage Current	I _R	uA	V _R =30V	SD103AWHQ		5
			V _R =20V	SD103BWHQ		5
			V _R =10V	SD103CWHQ		5
Reverse Breakdown Voltage	V _{BR}	V	I _R =100uA	SD103AWHQ	40	
				SD103BWHQ	30	
				SD103CWHQ	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			8

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SD103AWHQ SD103BWHQ SD103CWHQ	F2	Approximate 0.010	3000	30000	120000	7" reel



■ Characteristics (Typical)

Fig.1: PD-Ta Curve

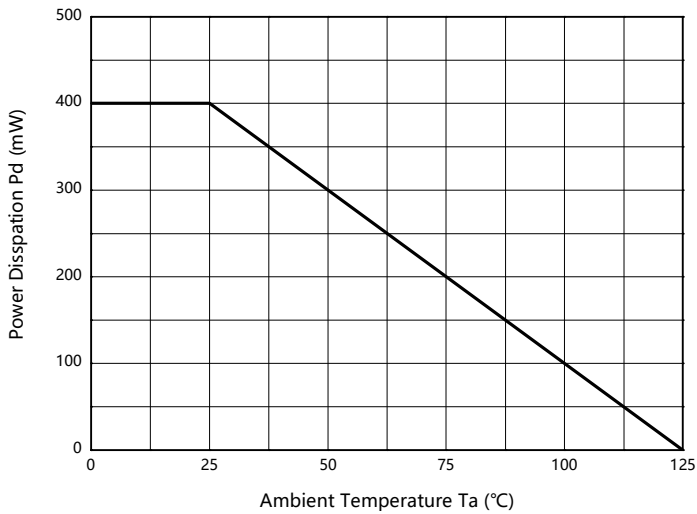


Fig.2: Capacitance Characteristics

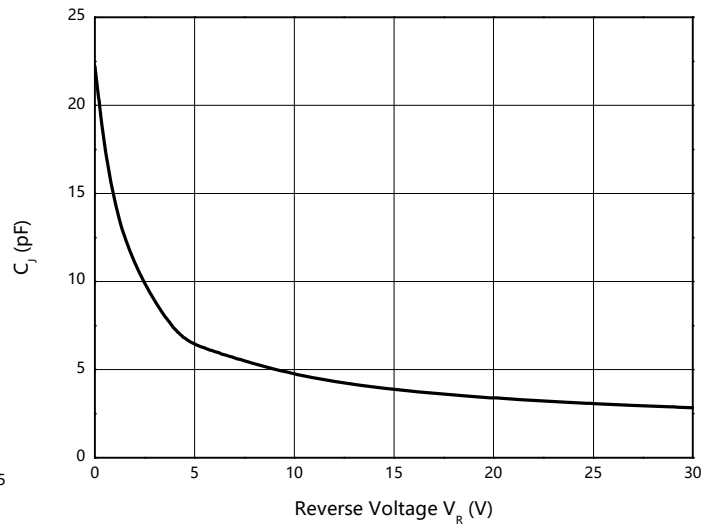


Fig.3: Forward Characteristics

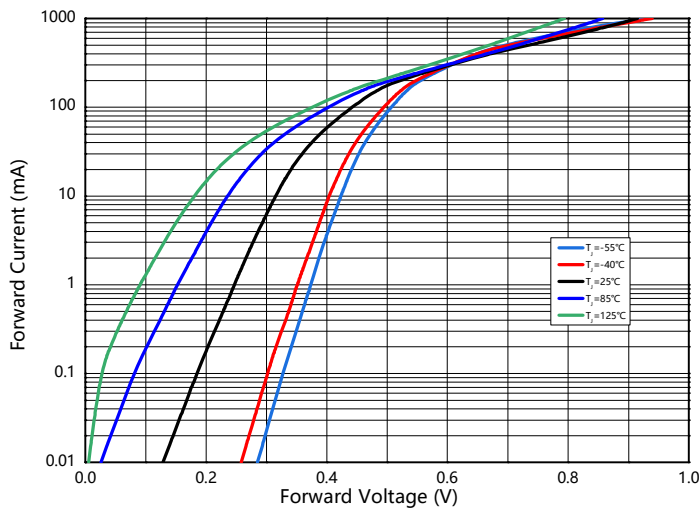
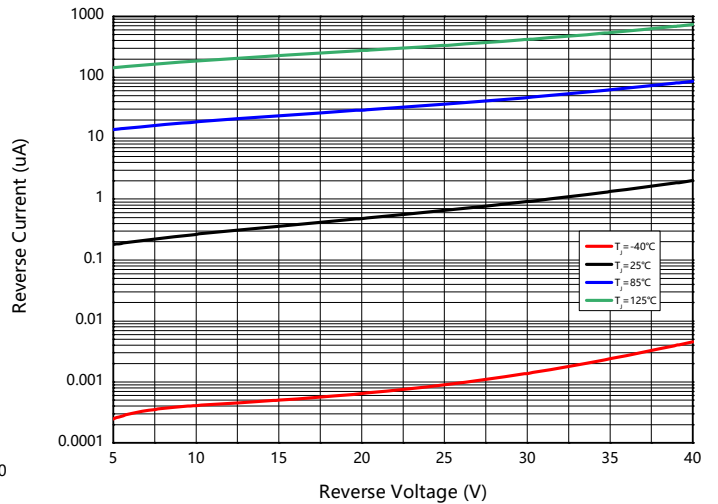


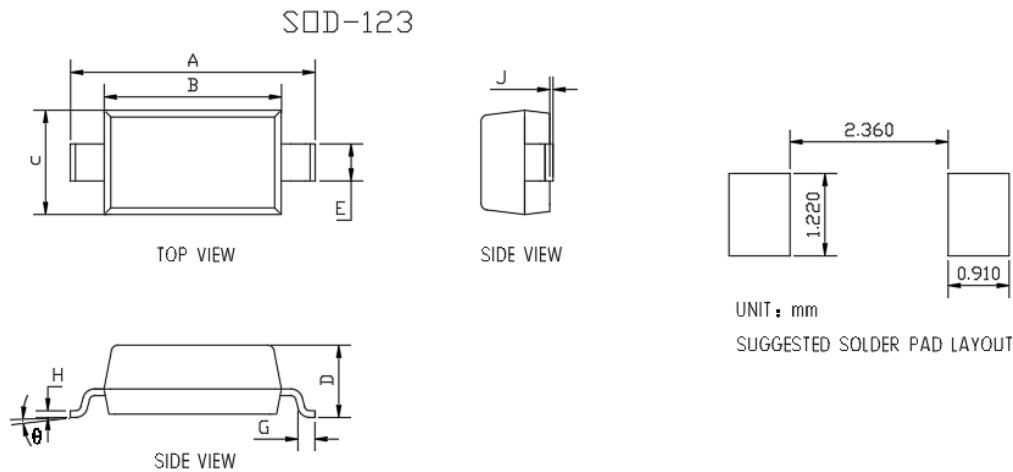
Fig.4: Reverse Characteristics





SD103AWHQ / SD103BWHQ / SD103CWHQ

■ 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
SD103AWHQ	S4
SD103BWHQ	S5
SD103CWHQ	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



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