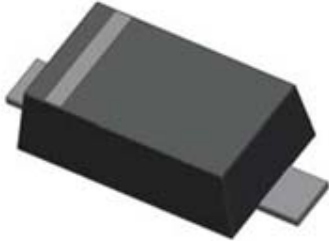
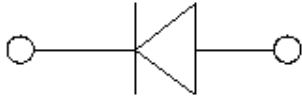


Small Signal Schottky Diode



SOD523

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_R 30V
- I_{FAV} 200mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- For low-loss, fast-recovery, meter protection, bias isolation and clamping application
- Low Forward Voltage Drop

Mechanical Data

- **Case:** SOD523
- **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
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	V		30
Average forward current	I_{FAV}	mA		200
Peak forward surge current	I_{FSM}	A	square wave $t_p < 10\text{ms}$	3
Power dissipation	P_D	mW		150
Thermal Resistance Junction to Ambient	R_{thJA}	$^\circ\text{C}/\text{W}$		667
Maximum junction temperature	T_j	$^\circ\text{C}$		-55 to +125
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	Typ	Max
Forward Voltage	V_F	V	$I_F=0.1\text{mA}$		0.20	0.24
			$I_F=1\text{mA}$		0.26	0.32
			$I_F=10\text{mA}$		0.33	0.4
			$I_F=30\text{mA}$		0.40	0.5
			$I_F=100\text{mA}$		0.50	1.0
Reverse Current	I_R	μA	$V_R=25\text{V}$		0.35	2
Reverse Breakdown Voltage	V_{BR}	V	$I_R=100\mu\text{A}$	30	47	
Typical Junction Capacitance	C_J	pF	$V_R=1\text{V}, f=1\text{MHz}$		9.5	10
Reverse Recovery Time	t_{rr}	ns	$I_F=I_R=10\text{mA}, R_L=100\Omega, I_{rr}=1\text{mA}$		4	5



Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAT54XV2Q	F2	Approximate 0.002	8000	80000	320000	7" reel

Characteristics (Typical)

Fig.1: P_D - T_A

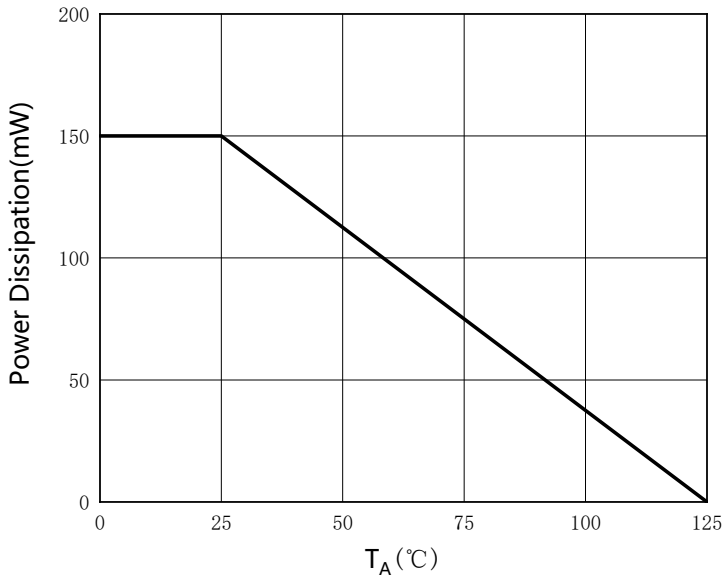


Fig.2: Capacitance Characteristics

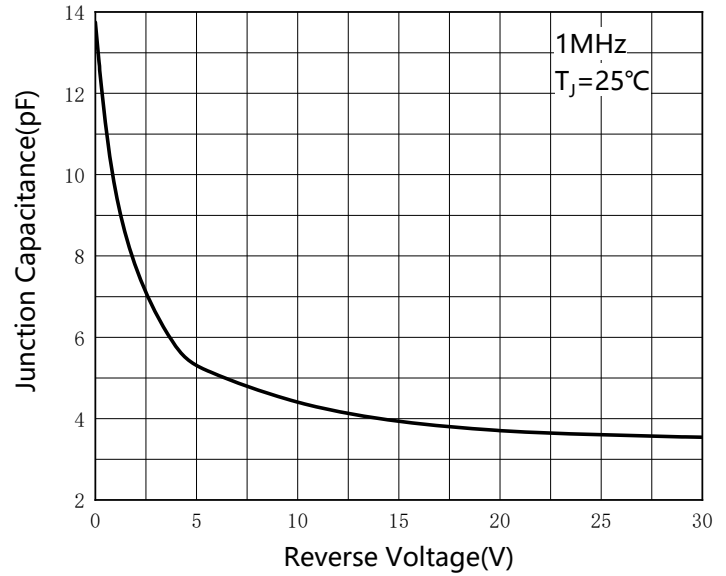


Fig.3: Forward Characteristics

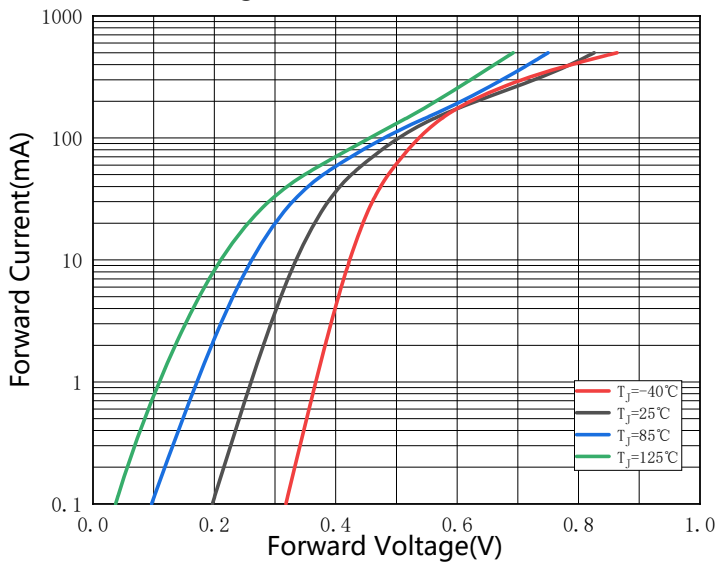
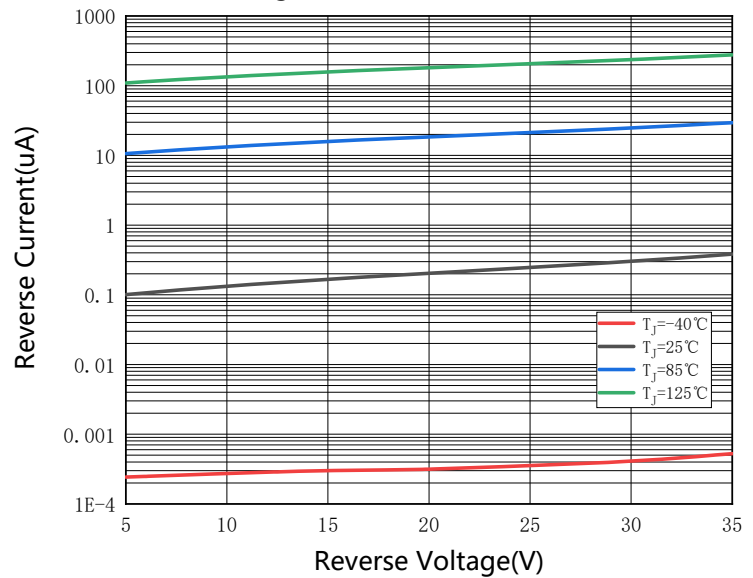
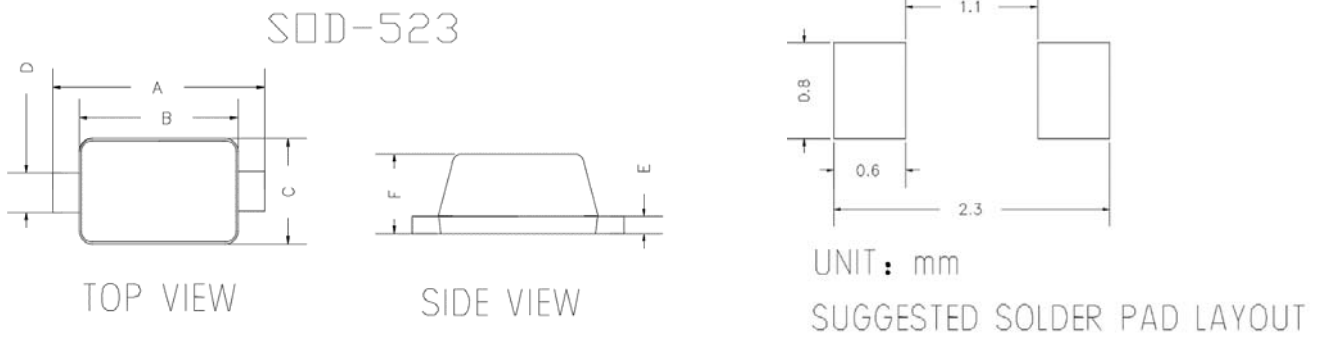


Fig.4: Reverse Characteristics

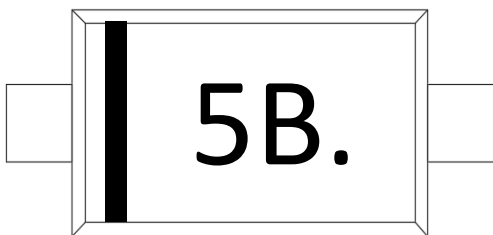


■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.059	0.067	1.500	1.700
B	0.043	0.051	1.100	1.300
C	0.028	0.035	0.700	0.900
D	0.010	0.014	0.250	0.350
E	0.002	0.008	0.050	0.200
F	0.020	0.028	0.500	0.700

■ 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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