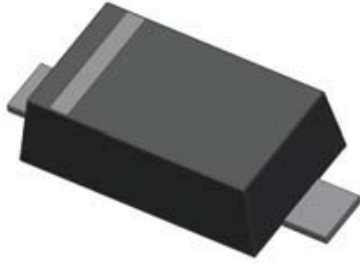


Small-Signal Fast Switching Diodes

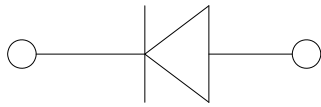


Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_R 75V
- I_{FAV} 200mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Typical Applications

- Fast Switching Speed



Mechanical Data

- **Package:** SOD523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** S1

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

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		75
Reverse voltage	V_R	V	$I_R=100\mu\text{A}$	75
Peak forward surge current	I_{FSM}	A	$T_P=1\text{ms}$	1
Average forward current	I_{FAV}	mA		200
Power dissipation	P_{tot}	mW		200
Thermal Resistance Junction to Ambient	R_{thJA}	$^\circ\text{C/W}$		625
Maximum junction temperature	T_J	$^\circ\text{C}$		-55 to +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	Max
Breakdown Voltage	V_R	V	$I_R=100\mu\text{A}$	75	
Forward Voltage	V_F	V	$I_F=1\text{mA}$		0.9
			$I_F=10\text{mA}$		1.0
			$I_F=50\text{mA}$		1.1
			$I_F=150\text{mA}$		1.25
Reverse Leakage Current	I_R	nA	$V_R=75\text{V}$		5
Capacitance	C_J	pF	$V_R=0\text{V}, f=1\text{MHz}$		4
Reverse Recovery Time	T_{RR}	us	$I_F=I_R=10\text{mA}, I_{tr}=0.1*I_R, R_L=100\Omega$		3

BAS716Q

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS716Q	F2	Approximate 0.002	8000	80000	320000	7" reel

■ Characteristics (Typical)

Fig1: Forward Characteristics

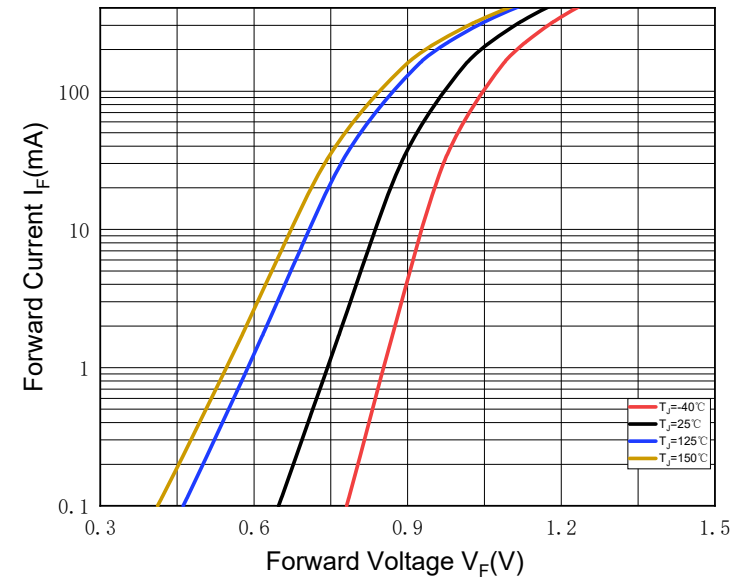


Fig.2: Reverse Characteristics

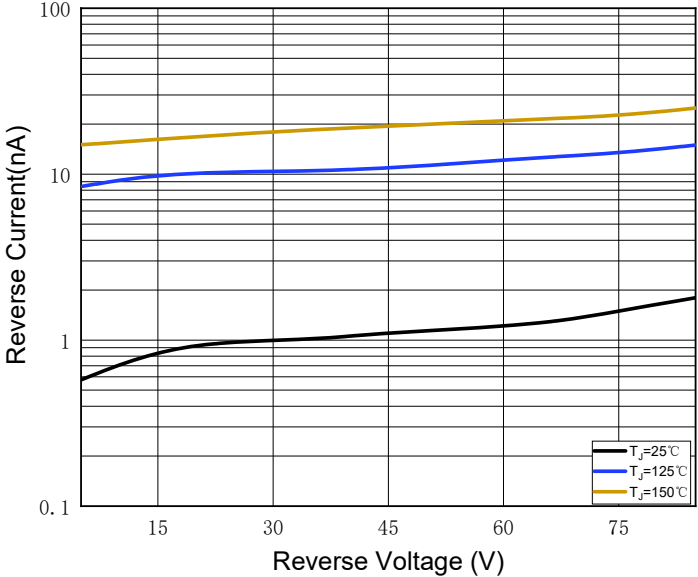
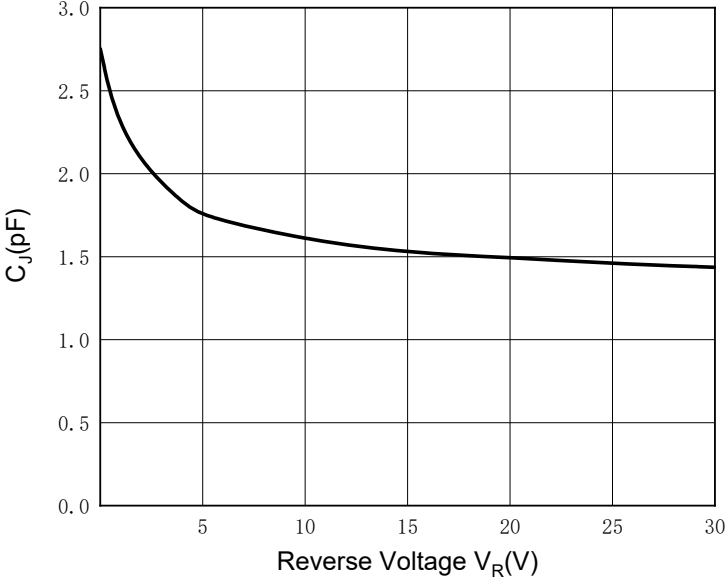
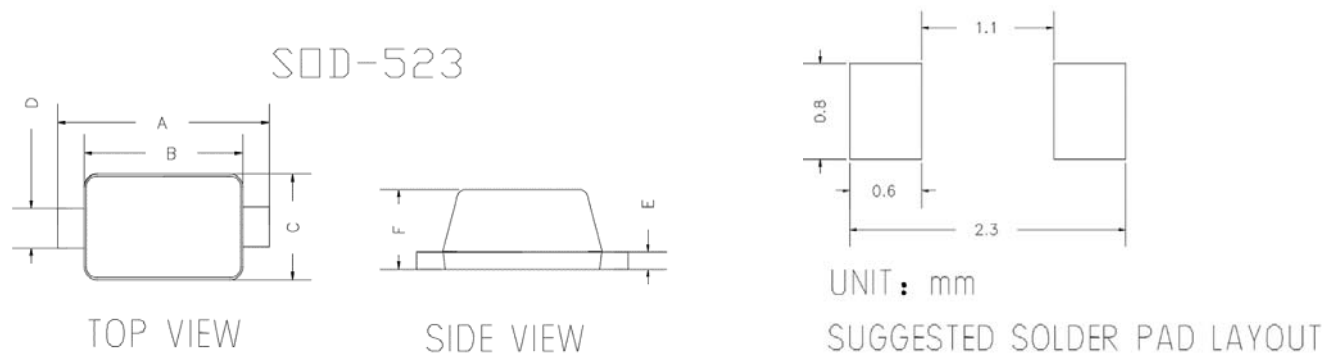


Fig.3: Capacitance Characteristics



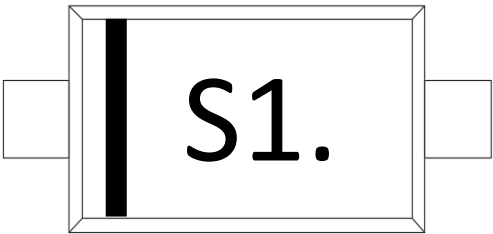
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■ Outline Dimensions



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

BAS716Q

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