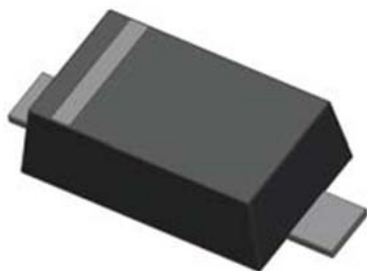


BAS521Q

Small-Signal Switching Diodes

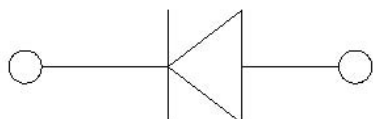


Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{RRM} 250V
- I_{FAV} 200mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Typical Applications

- General Purpose Switches Diodes
- Automotive



Mechanical Data

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

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		250
Reverse Voltage	V_R	V		250
Non-Repetitive Peak Forward Surge Current	I_{FSM}	A	t=8.3ms, Half sine-wave	2
Average forward current	I_{FAV}	mA		200
Thermal Resistance Junction to Ambient	$R_{thJA}^{(1)}$	K/W		833
Power dissipation	P_D	mW		150
Junction temperature range	T_J	°C		-55 to +150
Storage temperature range	T_{stg}	°C		-55 to +150

(1) Device mounted on an FR4 PCB (1.0 x 1.0 x 0.06 inch), single-sided copper, tin-plated and standard footprint.

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

PARAMETER	SYMBOL	UNIT	Conditions	Min	Max
Forward voltage	V_F	V	$I_F=100mA$		1.1
Reverse current	I_R	nA	$V_R=250V$		150
Breakdown voltage	V_R	V	$I_R=100uA$	250	
Diode capacitance	C_D	pF	$V_R=0V, f=1MHz$		5
Reverse recovery time	t_{rr}	ns	$I_F=30mA, I_{rr}=0.1I_R, R_L=100\Omega$		50

BAS521Q

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS521Q	F2	Approximate 0.002	8000	80000	320000	7" reel

■ Characteristics(Typical)

Fig.1: P_D-T_A

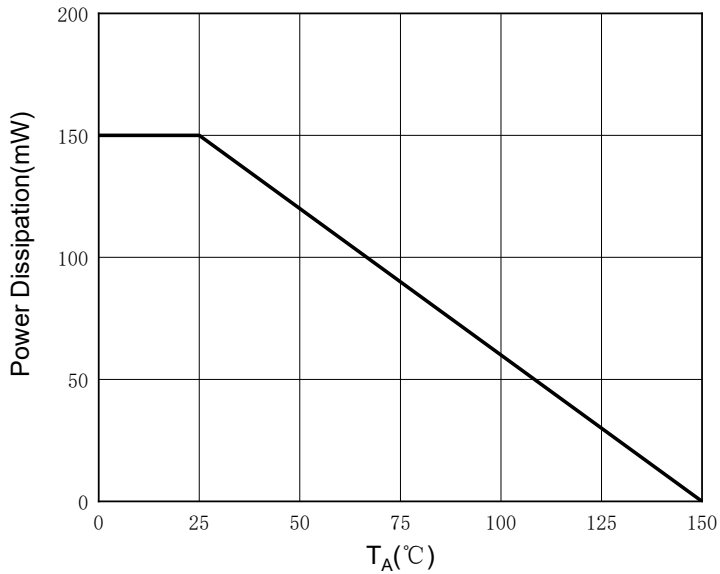


Fig.2: Forward Characteristics

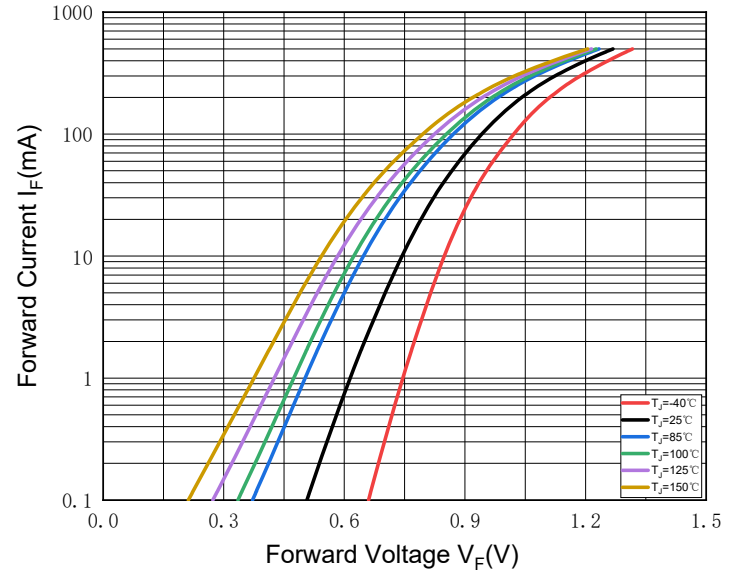


Fig.3: Reverse Characteristics

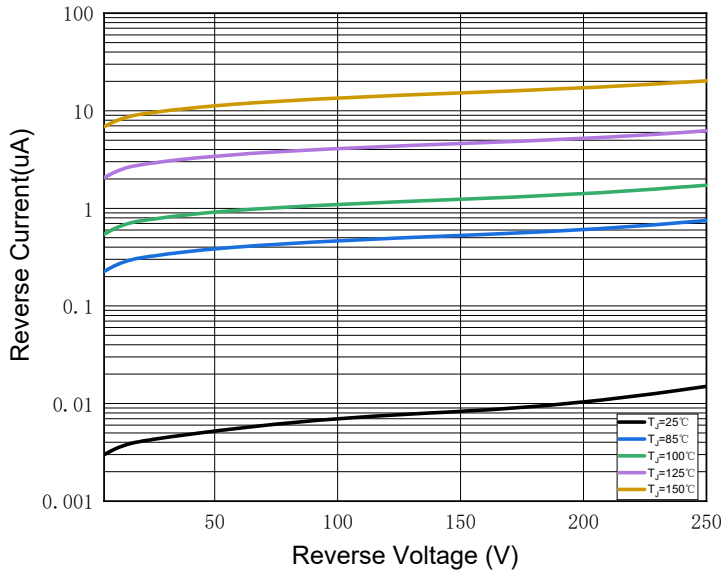
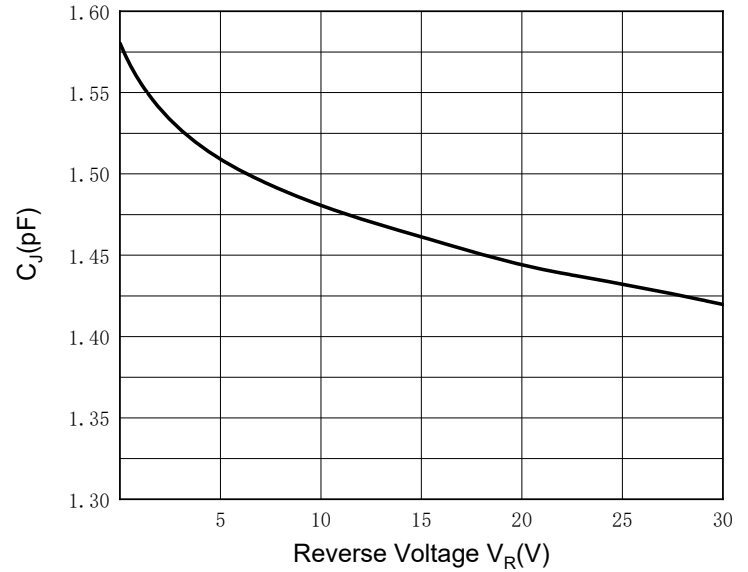
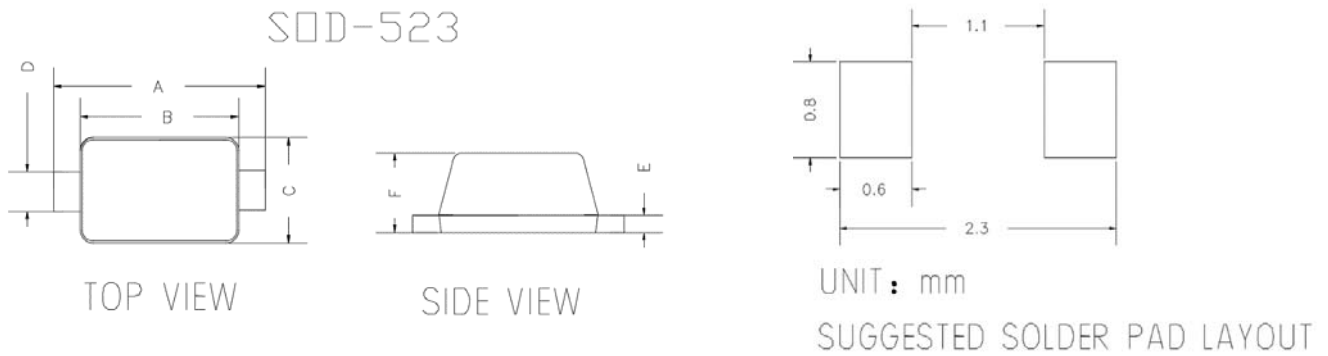


Fig.4: Capacitance Characteristics



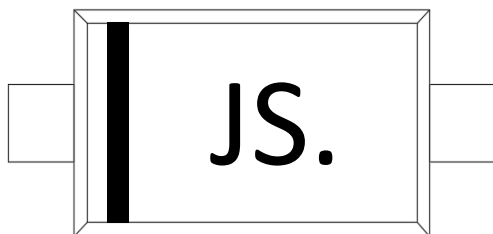
BAS521Q

■ 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

BAS521Q

Disclaimer

The information presented in this document is for reference only. Anhui Lingte Microsemiconductor Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, life-saving, life-sustaining, or military. Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.ltwsemi.cn](http://www.ltwsemi.cn).