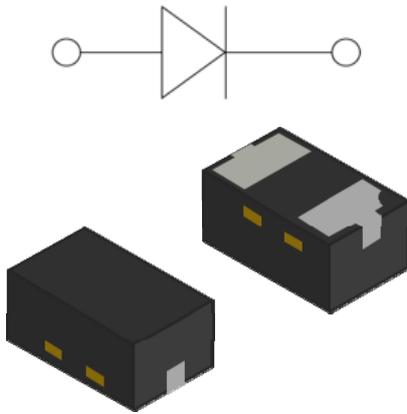


## High Speed Switching Diode



**DFN1006-2L-SWF**

### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- $V_{RRM}$  100V
- $I_{FAV}$  100mA
- Part no. with suffix "Q" means AEC-Q101 qualified

### Applications

- Extreme fast switches
- Automotive

### Mechanical Data

- **Case:** DFN1006-2L-SWF
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** M8 %

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		100
Average Forward Current	$I_{FAV}$	mA		100
Peak Forward Surge Current	$I_{FSM}$	A	$t_p=1\text{ms}$ , square wave $t_p=1\text{s}$ , square wave	1 0.5
Power Dissipation	$P_{tot}$	mW		150
Thermal Resistance Junction To Ambient air	$R_{thJA}$	K/W		825
Junction Temperature	$T_j$	$^{\circ}\text{C}$		-55 to +150
Storage Temperature Range	$T_{stg}$	$^{\circ}\text{C}$		-55 to +150



# BAS16LSHQ

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	V <sub>F</sub>	V	I <sub>F</sub> =1mA		0.715
			I <sub>F</sub> =10mA		0.855
			I <sub>F</sub> =50mA		1.0
			I <sub>F</sub> =150mA		1.25
Reverse Current	I <sub>R</sub>	nA	V <sub>R</sub> =25V		30
	I <sub>R</sub>	μA	V <sub>R</sub> =80V		0.5
Reverse Breakdown Voltage	V <sub>BR</sub>	V	I <sub>R</sub> =100μA	100	
Junction Capacitance	C <sub>j</sub>	pF	V <sub>R</sub> =V <sub>F</sub> =0V, f = 1MHz		1.5
Reverse Recovery Time	t <sub>rr</sub>	ns	I <sub>F</sub> =I <sub>R</sub> =50mA, I <sub>rr</sub> =0.1I <sub>R</sub> , R <sub>L</sub> =100Ω		5

## ■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS16LSHQ	Approximate 0.0009	10K	100K	400K	Tape & Reel



## ■ Characteristics (Typical)

Fig.1:  $P_D-T_A$

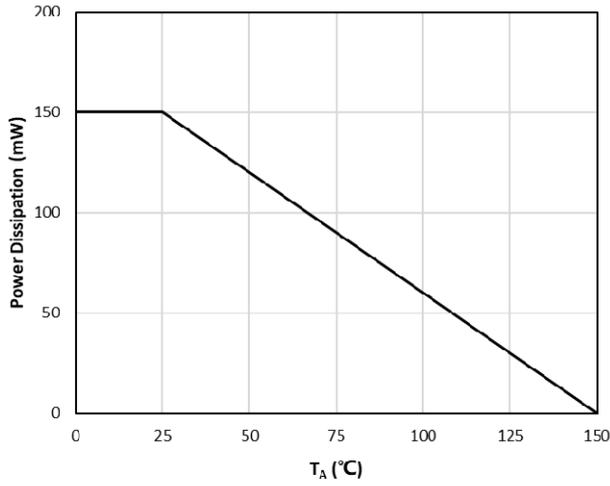


Fig.2: Capacitance Characteristic

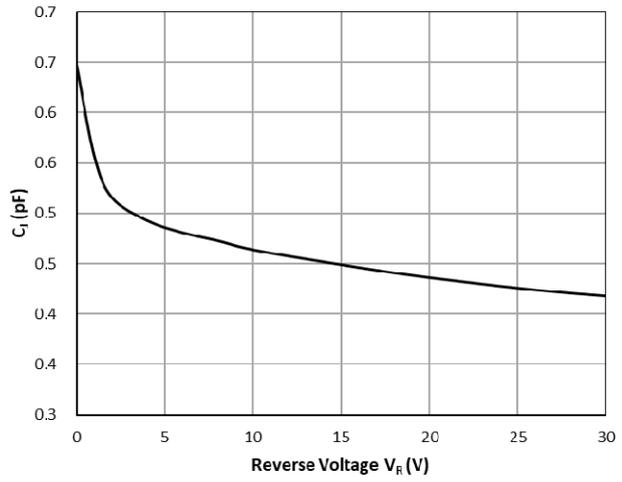


Fig.3: Forward Characteristic

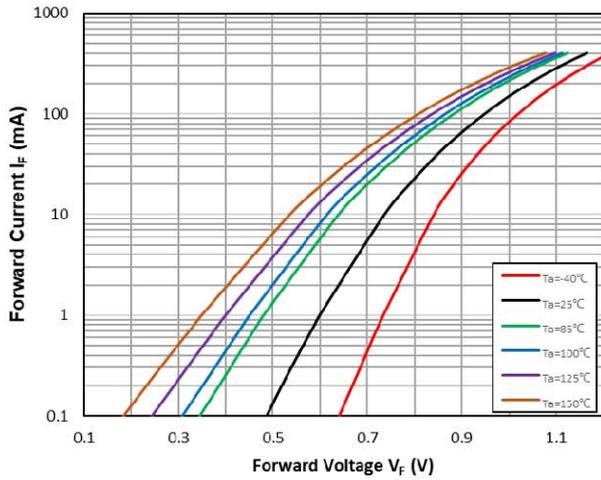
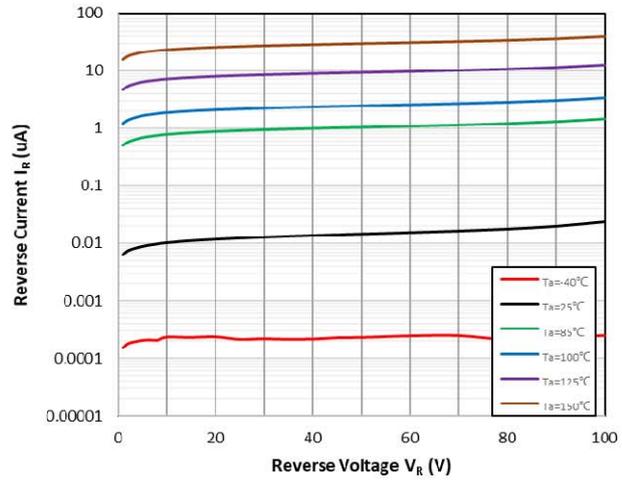


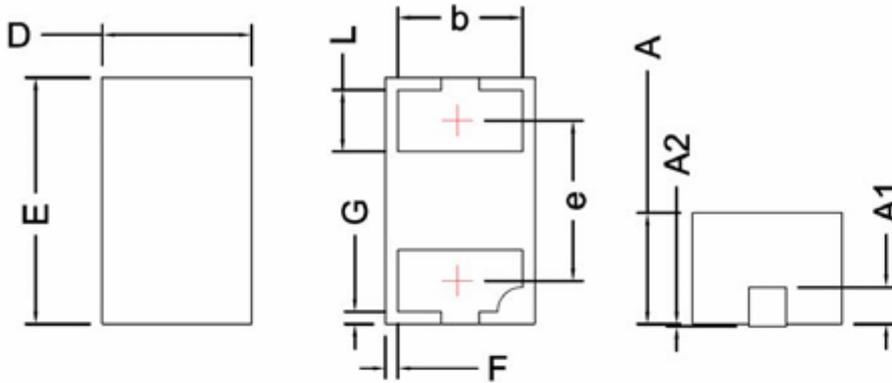
Fig.4: Reverse Characteristics



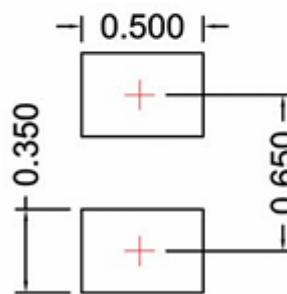


# BAS16LSHQ

## ■ Outline Dimensions



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
D	0.50	0.60	0.70
E	0.90	1.00	1.10
A	0.35	0.45	0.55
A1	0.15 BSC		
A2			0.10
F	0.005		
G	0.005		
L	0.15	0.25	0.35
b	0.41	0.50	0.59
e	0.65 BSC		



Unit: mm

## ■ Marking Information



Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black
4. M8 is Marking Code
5. % is a date code, rotated 90° counterclockwise

\*Date Code vary depending upon production date



## BAS16LSHQ

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