

## Small Signal Schottky Diode



### SOT-23

#### Features

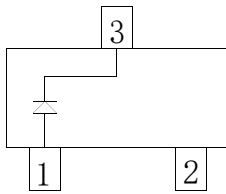
- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- Low Forward Voltage Schottky Rectifier
- $V_R$  70V
- $I_{FAV}$  0.07A
- Part no. with suffix "Q" means AEC-Q101 qualified

#### Applications

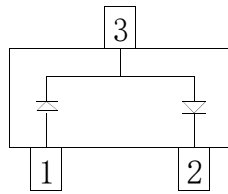
- For Transient and ESD Protection

#### Mechanical Data

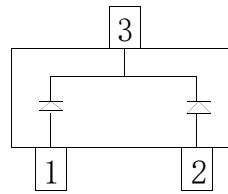
- **Case:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102



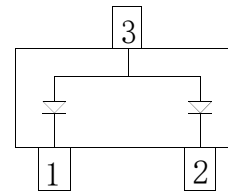
BAS70Q  
Marking:73



BAS70-04Q  
Marking:74



BAS70-05Q  
Marking:75



BAS70-06Q  
Marking:76

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Continuous Reverse Voltage	$V_R$	V		70
Average Forward Current	$I_{FAV}$	mA		70
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	mA	$t=8.3\text{ms}$	100
Power Dissipation	$P_D$	mW		200
Thermal Resistance Junction to Ambient	$R_{thJA}$	$^\circ\text{C}/\text{W}$		500
Junction Temperature	$T_j$	$^\circ\text{C}$		-55 to +125
Storage Temperature Range	$T_{stg}$	$^\circ\text{C}$		-55 to +150



# BAS70Q/BAS70-04Q/BAS70-05Q/BAS70-06Q

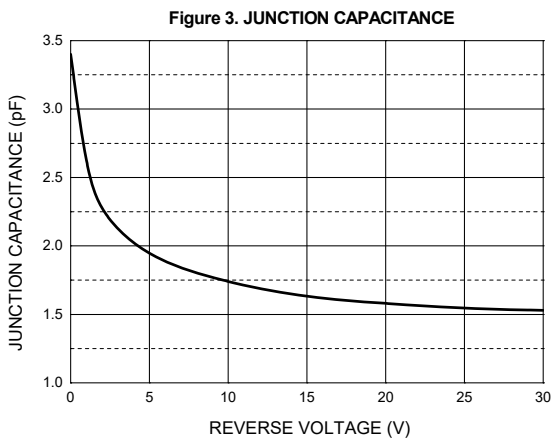
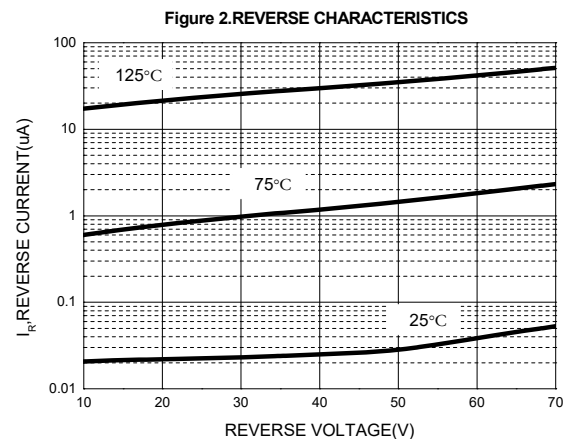
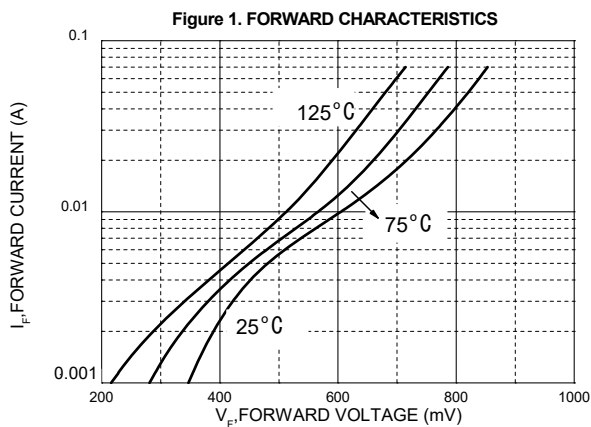
## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	V	I <sub>R</sub> =10uA	70	
Forward Voltage	V <sub>F</sub>	V	I <sub>F</sub> =1.0mA	-	0.41
			I <sub>F</sub> =15mA	-	1.0
Reverse Current	I <sub>R</sub>	μA	V <sub>R</sub> =50V	-	0.2
Junction Capacitance	C <sub>J</sub>	pF	V <sub>R</sub> =0 V, f =1MHz	-	4
Reverse Recovery Time	t <sub>rr</sub>	ns	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>tr</sub> =1mA, R <sub>L</sub> =100Ω	-	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
BAS70Q/ BAS70-04Q/ BAS70-05Q/ BAS70-06Q	F2	Approximate 0.01	3000	30000	120000	7" reel

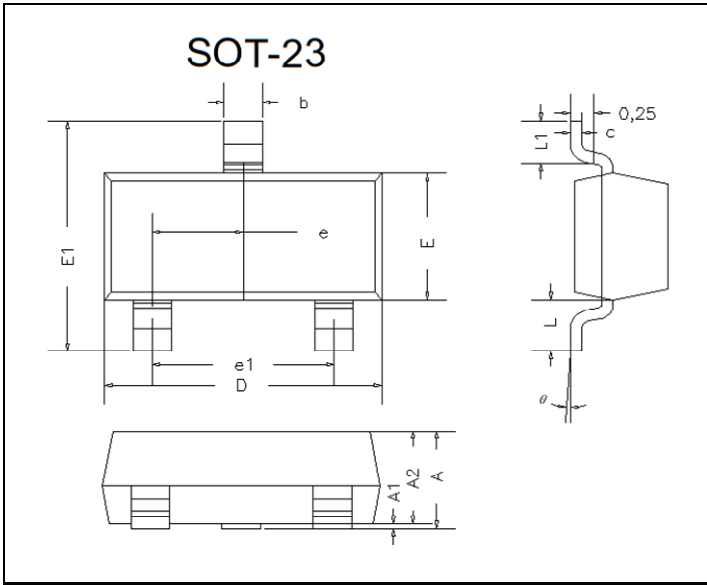
## ■ Characteristics(Typical)





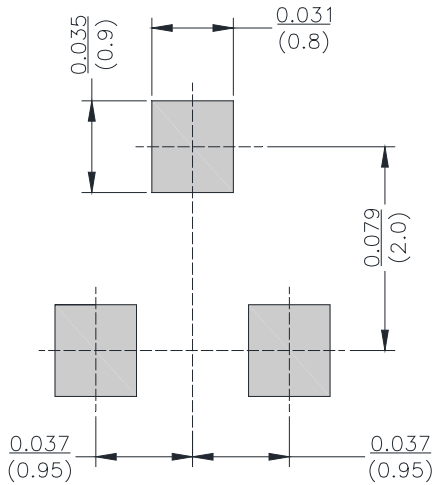
# BAS70Q/BAS70-04Q/BAS70-05Q/BAS70-06Q

## ■ SOT-23 Package Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.045	0.90	1.15	
A1	0.000	0.004	0.00	0.10	
A2	0.035	0.041	0.90	1.05	
b	0.012	0.020	0.30	0.50	
c	0.004	0.008	0.10	0.20	
D	0.110	0.118	2.80	3.00	
E	0.047	0.055	1.20	1.40	
E1	0.089	0.100	2.25	2.55	
e	0.370TYP		0.95TYP		
e1	0.071	0.079	1.80	2.00	
L	0.220REF		0.55REF		
L1	0.012	0.020	0.30	0.50	
θ	0°	8°	0°	8°	

## ■ SOT-23 Suggested Pad Layout



Unit:  $\frac{\text{inch}}{\text{mm}}$



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