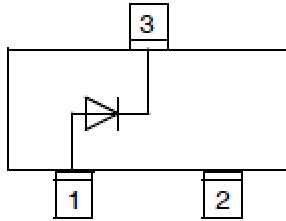


## Switching Diode



### SOT-23

#### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- Low Current Leakage
- Part no. with suffix "Q" means AEC-Q101 qualified

#### Applications

- For General Purpose Switching Applications

#### Mechanical Data

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

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

Item	Symbol	Unit	Value
Reverse Voltage	$V_R$	V	250
Forward Continuous Current, Per Leg	$I_F$	mA	200
Non-Repetitive Peak Forward Surge Current@ t=1s,	$I_{FSM}$	A	0.5
Power Dissipation	$P_D$	mW	350
Operation Junction Temperature	$T_J$	°C	-55 to +150
Storage Temperature	$T_{STG}$	°C	-55 to +150

#### ■Electrical Characteristics (Ta=25°C Unless otherwise specified, Per Leg)

Item	Symbol	Unit	Conditions	Value
Reverse Voltage	$V_R$	V	$I_R=100\mu A$	250
Maximum Instantaneous Forward Voltage	$V_F$	V	$I_{FM}=100mA, T_J=25^\circ C$	1.0
			$I_{FM}=200mA, T_J=25^\circ C$	1.25
Maximum DC Reverse Current	$I_R$	nA	$V_R=200V$	100
Typical Junction Capacitance	$C_J$	pF	$f=1.0MHz, V_R=0V$	5
Reverse Recovery Time	$T_{rr}$	ns	$I_F=30mA, I_R=30mA, R_L=100\Omega, I_{rr}=3mA$	50



# BAS21Q

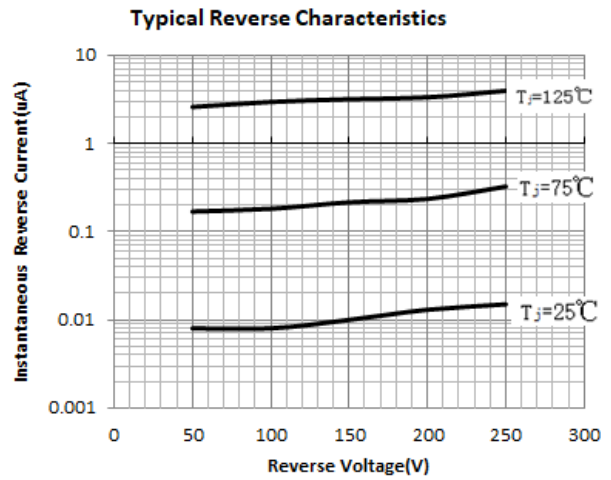
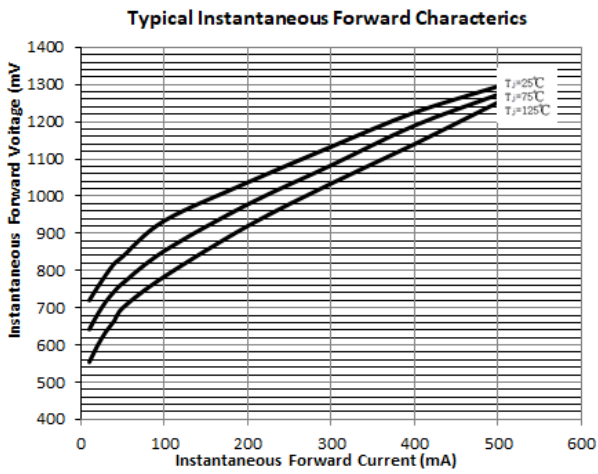
## ■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Value
Thermal Resistance(Typical)	$R_{\theta JA}$	°C/W	357

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS21Q	F2	Approximate 0.010	3000	30000	120000	7" reel

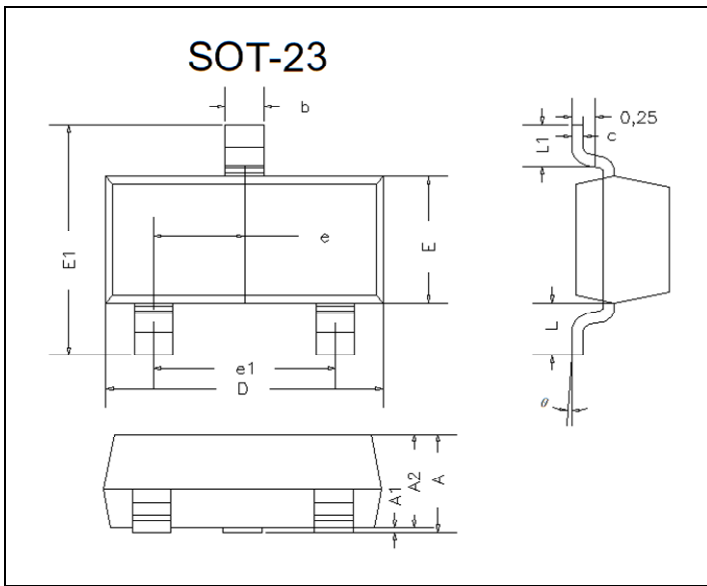
## ■ Typical Characteristics (Per Leg)





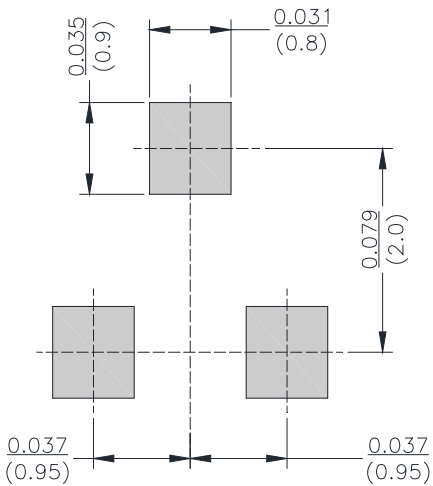
# BAS21Q

## ■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	
theta	0°	8°	0°	8°	

## ■SOT-23 Suggested Pad Layout



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



## BAS21Q

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