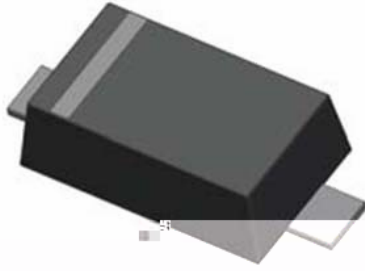


## BAS521Q

### Small-Signal Switching Diodes

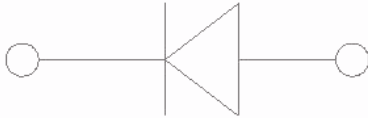


#### Features

- 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 - Unless otherwise specified Å

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Thermal Resistance Junction to Ambient	$R_{thJA}^{(1)}$	K/W		833
Power dissipation	$P_D$	mW		150
Junction temperature range	$T_J$	-		-55 to +150
Storage temperature range	$T_{stg}$	-		-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 ÅTa=25 - Unless otherwise specified Å

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	$I_F=30mA, I_{rr}=0.1I_R, R_L=100$		50



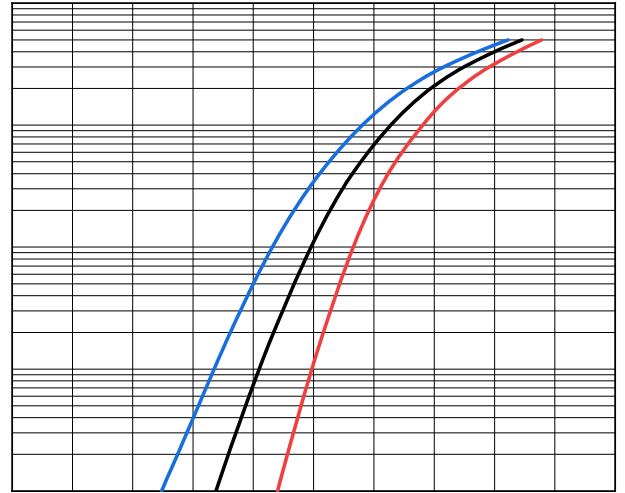
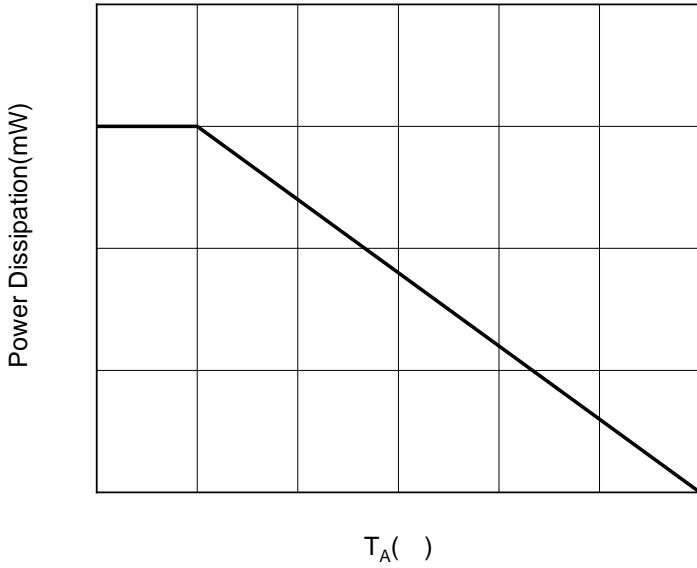
# BAS521Q

## 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)

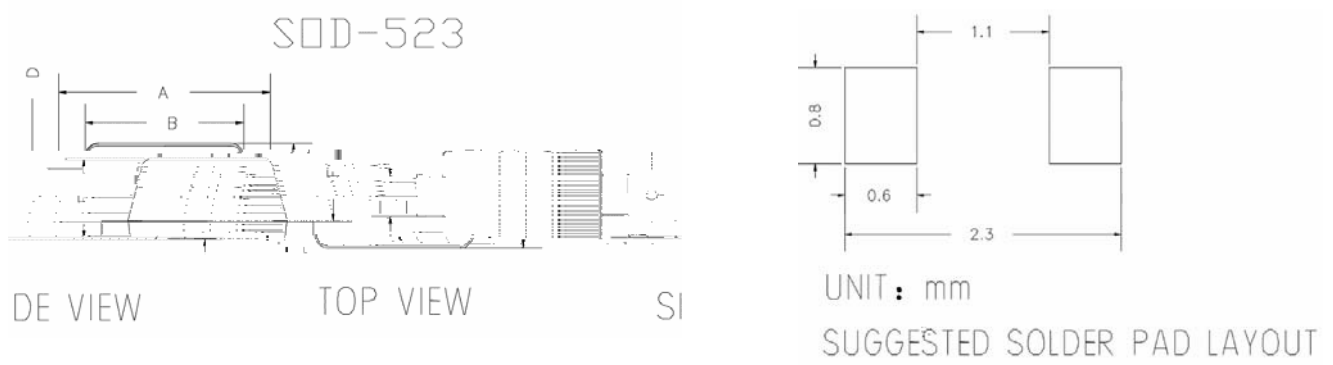
Fig.1:  $P_D-T_A$





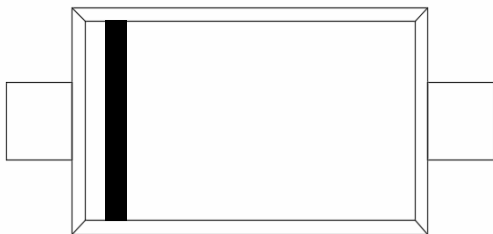
# BAS521Q

## 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
D	0.035	0.400	0.900	10.028
C	0.014	0.250	0.350	6.350
E	0.008	0.050	0.200	1.270

## 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

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