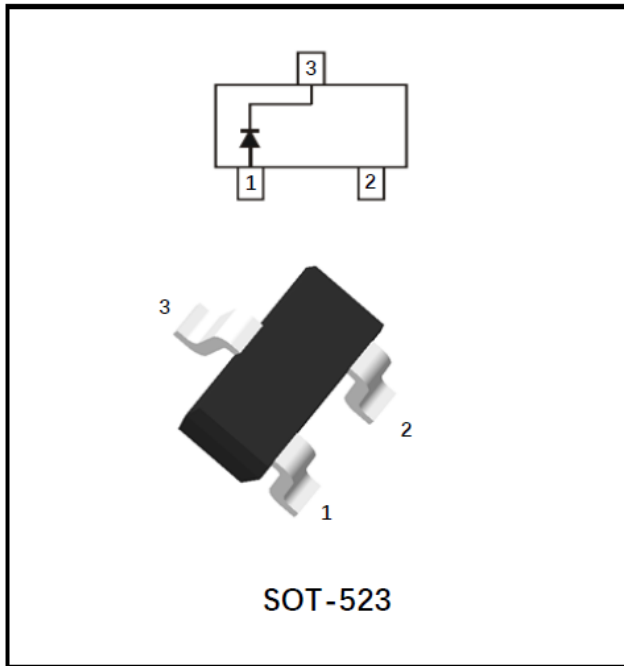


## Switching Diode



### Features

- Fast switching speed
- High Conductance
- Surface mount package ideally Suited for Automatic Insertion

### Mechanical Data

- **Package:** SOT-523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** A2

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

Item	Symbol	Unit	Value
Reverse Voltage	$V_R$	V	85
Forward Continuous Current	$I_F$	mA	150
Non-Repetitive Peak Forward Surge Current @ t=1ms	$I_{FSM}$	A	1
Power Dissipation	$P_D$	mW	150
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	°C/W	833
Operation Junction Temperature	TJ	°C	150
Storage Temperature	TSTG	°C	-55 to +150



# BAS16T

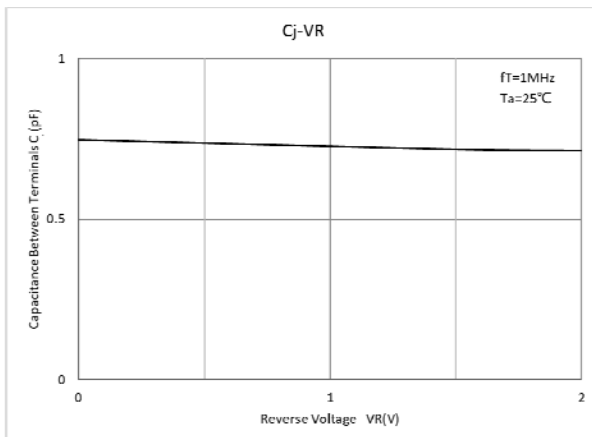
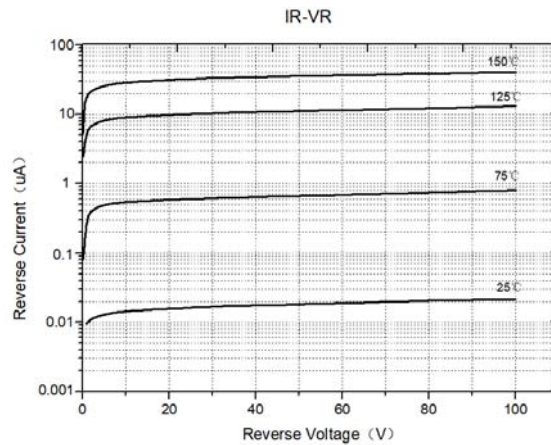
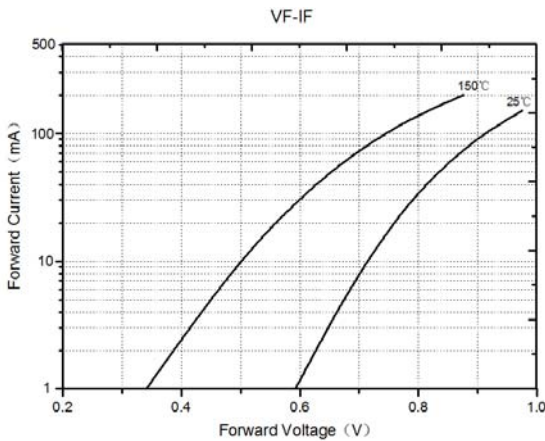
## ■ Electrical Characteristics (Ta=25°C unless otherwise specified)

Item	Symbol	Unit	Conditions	MIN	TYP	MAX
Reverse Voltage	$V_R$	V	$I_R=100\mu A$	85	-	-
Maximum Instantaneous Forward Voltage	$V_F$	V	$I_F=1mA$	-	-	0.715
			$I_F=10mA$	-	-	0.855
			$I_F=50mA$	-	-	1
			$I_F=150mA$	-	-	1.25
Maximum DC Reverse Current	$I_R$	nA	$V_R=25V$	-	-	30
		$\mu A$	$V_R=75V$	-	-	2
Typical Junction Capacitance	$C_J$	pF	$f=1.0MHz, V_R=0V$	-	-	2
Reverse Recovery Time	$T_{rr}$	ns	$I_F=I_R=10mA$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$	-	-	4

## ■ Ordering Information (Example)

Preferred P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
BAS16T	F2	Approximate 0.0027	3000	30000	120000	7" reel

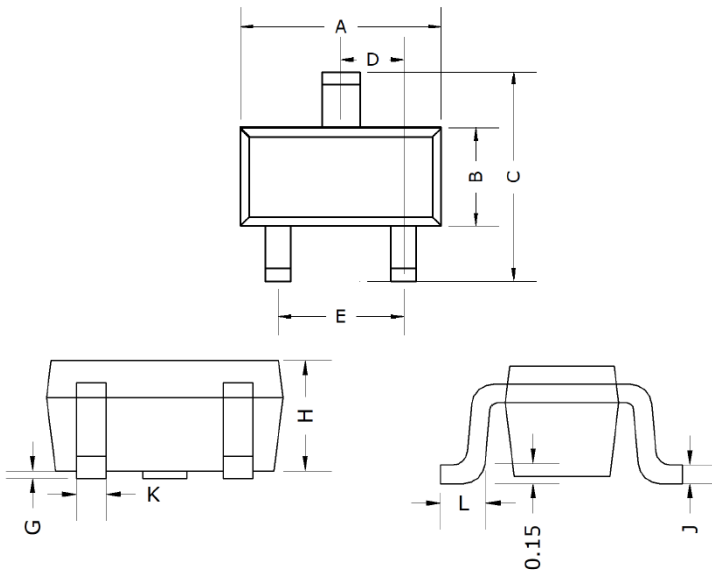
## ■ Characteristics (Typical)





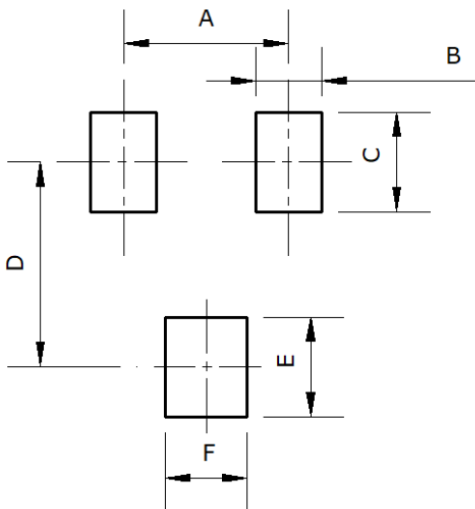
# BAS16T

## ■ SOT-523 Package Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.059	0.067	1.50	1.70
B	0.030	0.033	0.75	0.85
C	0.057	0.069	1.45	1.75
D	0.020TYP		0.50TYP	
E	0.035	0.043	0.90	1.10
G	0.000	0.004	0.00	0.10
H	0.024	0.031	0.60	0.80
J	0.004	0.008	0.10	0.20
K	0.006	0.014	0.15	0.35
L	0.010	0.018	0.26	0.46

## ■ SOT-523 Suggested Pad Layout



DIMENSIONS	
DIM	MM (TYP)
A	1.00
B	0.40
C	0.60
D	1.24
E	0.60
F	0.50



# BAS16T

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