

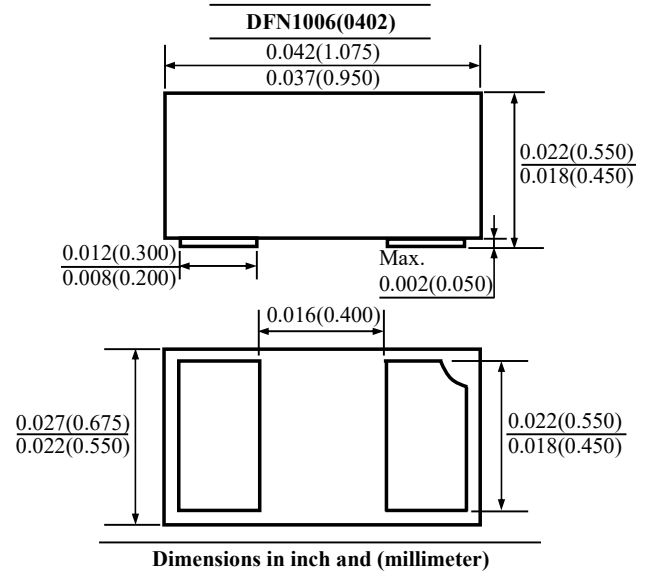
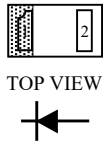


# BAS16LPH

## SWITCHING DIODE

### FEATURES

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- Suffix "H" indicates Halogen-free parts, ex. BAS16LPH



### Maximum Ratings@ $T_A = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit	
Peak Reverse Voltage	$V_{RM}$	100	V	
Reverse Voltage	$V_R$	75	V	
Average Rectified Forward Current	$I_{F(AV)}$	200	mA	
Forward Continuous Current	$I_{FM}$	300	mA	
Non-Repetitive Peak Forward Current	$I_{FSM}$	$t = 1 \mu\text{s}$	2	A
		$t = 1 \text{ s}$	1	
Power Dissipation	$P_D$	250	mW	
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	$T_{STG}$	-65 to +150	$^\circ\text{C}$	

### Electrical Characteristics@ $T_A = 25^\circ\text{C}$

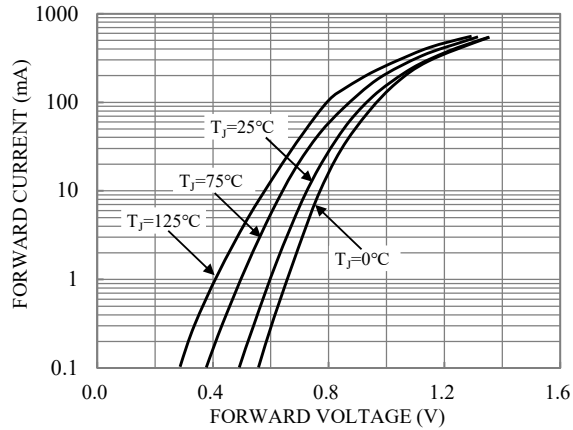
Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R = 100 \mu\text{A}$	$V_{(BR)R}$	75	-	V
Forward Voltage	$I_F = 1 \text{ mA}$	$V_F$	-	0.715	V
	$I_F = 10 \text{ mA}$		-	0.855	
	$I_F = 50 \text{ mA}$		-	1.000	
	$I_F = 150 \text{ mA}$		-	1.250	
Peak Reverse Current	$V_R = 20 \text{ V}$	$I_R$	-	25	nA
	$V_R = 75 \text{ V}$		-	1	$\mu\text{A}$
	$V_R = 25 \text{ V } T_j = 150^\circ\text{C}$		-	30	$\mu\text{A}$
	$V_R = 75 \text{ V } T_j = 150^\circ\text{C}$		-	50	$\mu\text{A}$
Total Capacitance	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	$C_T$	-	2	pF
Reverse Recovery Time	$I_F = I_R = 10 \text{ mA}, I_{tr} = 0.1 \times I_R,$ $R_L = 100 \Omega$	$t_{rr}$	-	4	nS



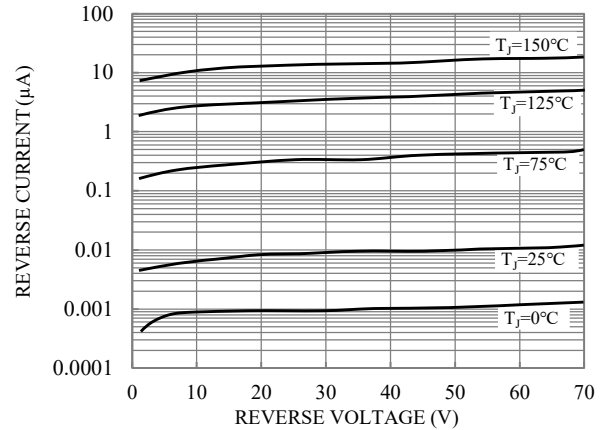
# BAS16LPH

## SWITCHING DIODE

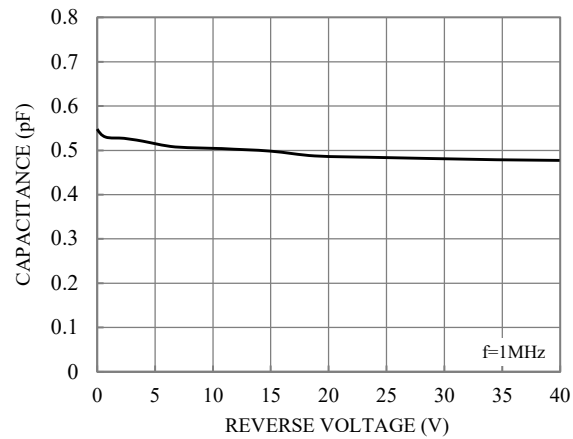
### RATINGS AND CHARACTERISTIC CURVES



**Fig.1-TYPICAL FORWARD CHARACTERISTICS**



**Fig.2-TYPICAL REVERSE CHARACTERISTICS**



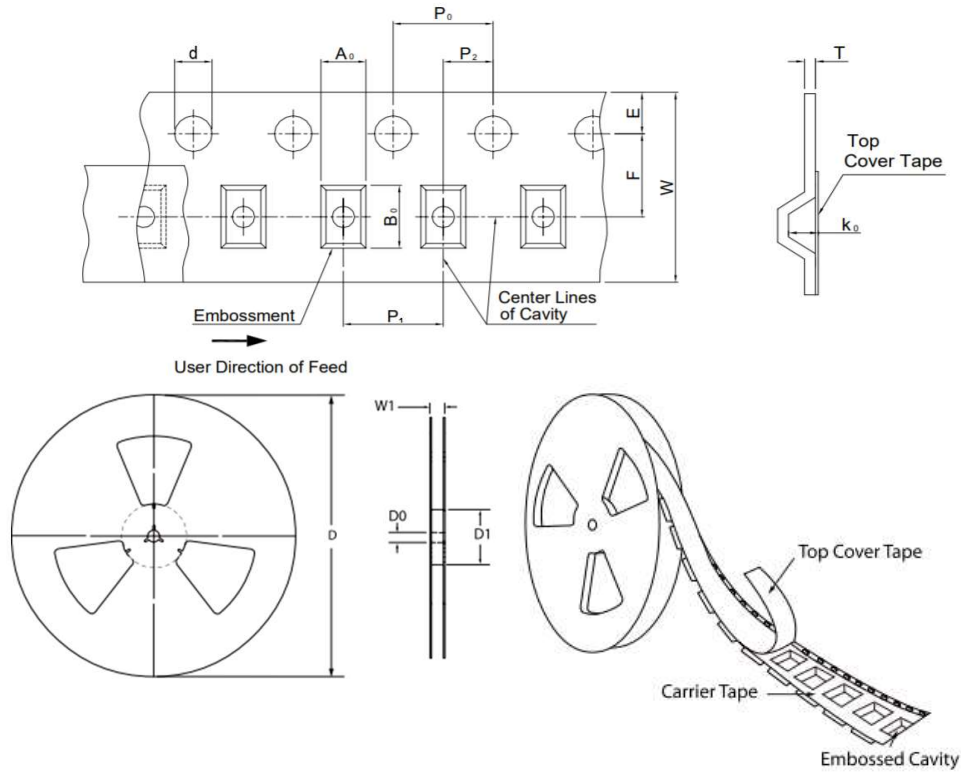
**Fig.3-TYPICAL CAPACITANCE**



# BAS16LPH

## SWITCHING DIODE

### TAPE & REEL SPECIFICATION



Item	Symbol	DFN1006
Carrier width	$A_0$	Note *
Carrier length	$B_0$	
Carrier depth	$K_0$	
Sprocket hole	$d$	$1.50 \pm 0.10$
Reel outside diameter	$D$	$178.00 \pm 2.00$
Feed hole width	$D_0$	$13.00 \pm 0.50$
Reel inner diameter	$D_1$	MIN. 54.00
Sprocket hole position	$E$	$1.75 \pm 0.10$
Punch hole position	$F$	$3.50 \pm 0.10$
Sprocket hole pitch	$P_0$	$4.00 \pm 0.10$
Punch hole pitch	$P_1$	$2.00 \pm 0.10$
Embossment center	$P_2$	$2.00 \pm 0.10$
Overall tape thickness	$T$	MAX. 0.60
Tape width	$W$	$8.00 \pm 0.30$
Reel width	$W_1$	$8.40 \pm 1.50$

Note \*:  $A_0$ ,  $B_0$ , and  $K_0$  are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max.

### ORDER INFORMATION

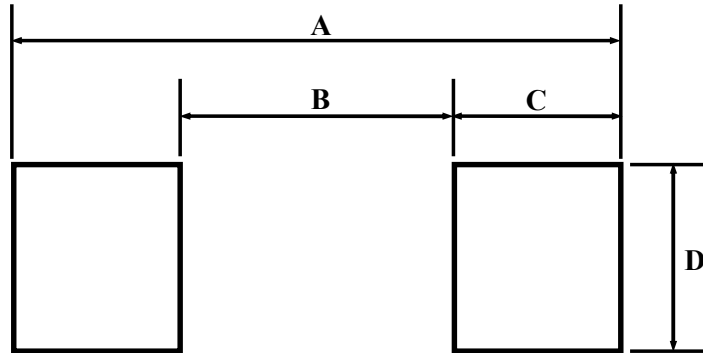
Part Number	Marking Code	Reel Size	Quantity
BAS16LPH	A6	7"	10,000



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## SWITCHING DIODE

### SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
DFN1006	1.10	0.30	0.40	0.60