

# BAS16P

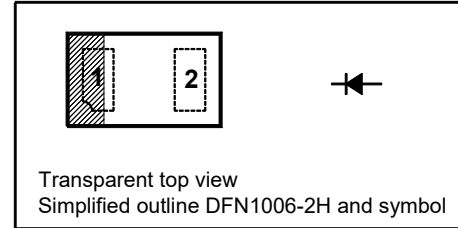
## Silicon Epitaxial Planar Switching Diode

### Features

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- High conductance

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



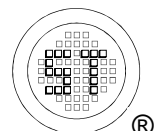
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

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	$I_{FSM}$	2 1	A
		$t = 1 \mu\text{s}$ $t = 1 \text{ s}$	
Power Dissipation	$P_D$	250	mW
Operating and Storage Temperature Range	$T_j, T_{stg}$	- 65 to + 150	$^\circ\text{C}$

### Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	500	$^\circ\text{C/W}$

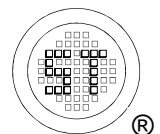
<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



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## Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	75	-	V
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	$V_F$	- - - -	0.715 0.855 1 1.25	V
Peak Reverse Current at $V_R = 20 \text{ V}$ at $V_R = 75 \text{ V}$ at $V_R = 25 \text{ V}$ , $T_j = 150^\circ\text{C}$ at $V_R = 75 \text{ V}$ , $T_j = 150^\circ\text{C}$	$I_R$	- - - -	25 1 30 50	nA $\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$
Total Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_T$	-	2	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}$ , $I_{rr} = 0.1 \times I_R$ , $V_R = 6 \text{ V}$ , $R_L = 100 \Omega$	$t_{rr}$	-	4	ns



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## Electrical Characteristics Curves

Fig 1. Power Derating Curve

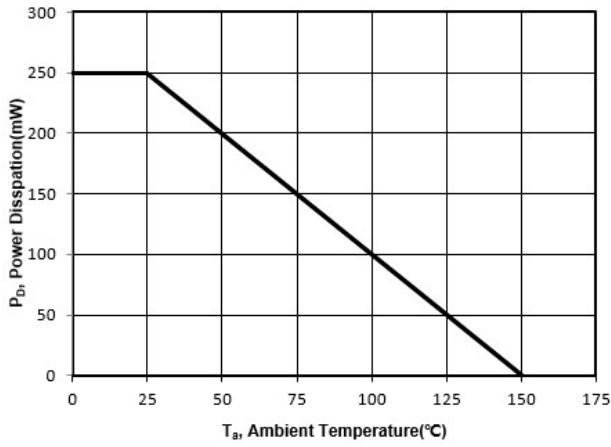


Fig 2. Capacitance characteristics

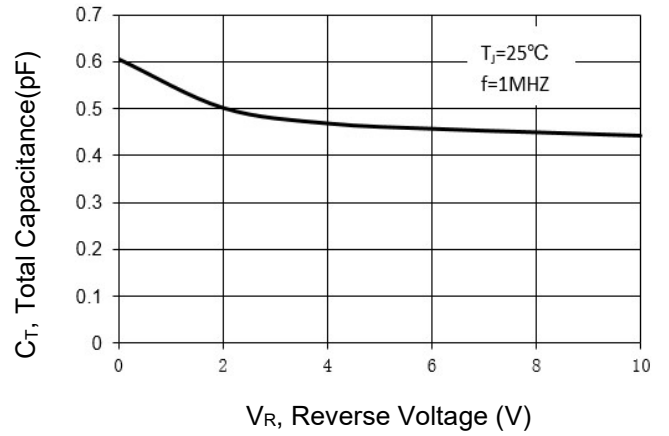


Fig 3. Reverse Characteristics

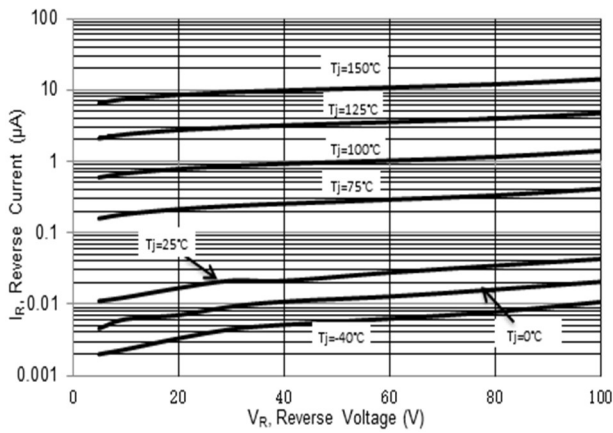
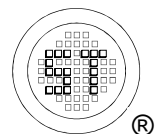
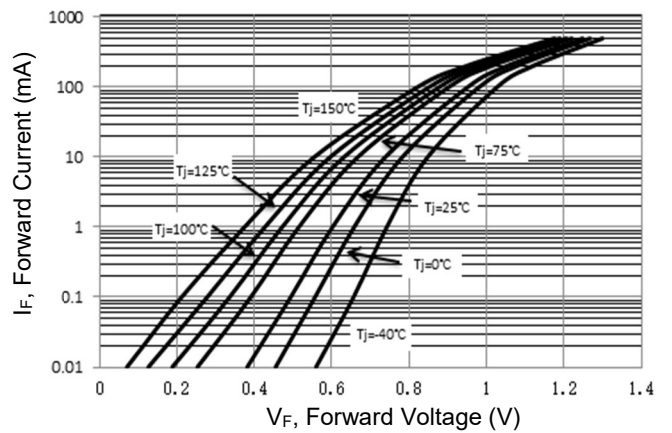


Fig 4. Forward Characteristics

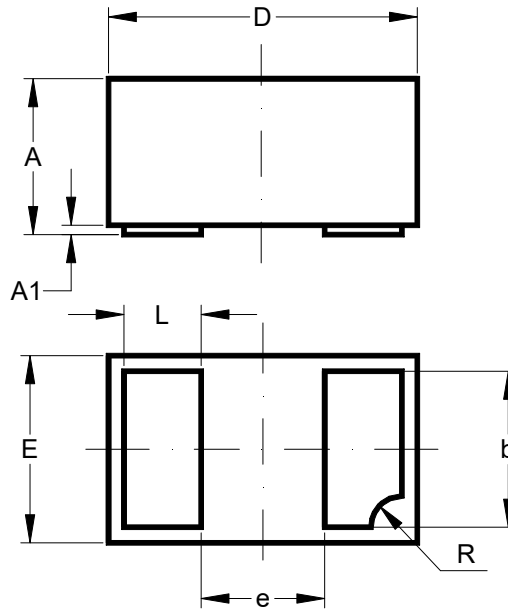


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## PACKAGE OUTLINE

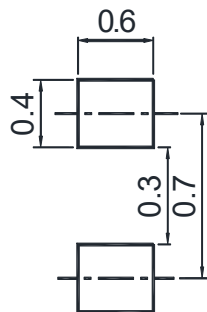
Plastic surface mounted package; 2 leads

DFN1006-2H



UNIT	A	A1	b	D	E	e	L	R
mm	0.51 0.46	0.05 0	0.55 0.45	1.05 0.95	0.65 0.55	0.4	0.3 0.2	0.15 0.05

### Recommended Soldering Footprint



### Packing information

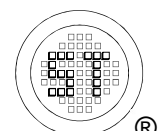
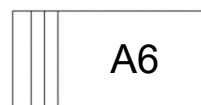
Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1006-2H	8	$2 \pm 0.1$	$0.079 \pm 0.004$	178	7	10,000

### Marking information

" A6 " = Part No.

" III " = Cathode line

Font type: Arial



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