

- Small plastic SMD package
- Switching speed: max. 50 ns
- General application
- Continuous reverse voltage: max. 200 V
- Repetitive peak reverse voltage: max. 250 V
- Repetitive peak forward current: max. 625 mA.

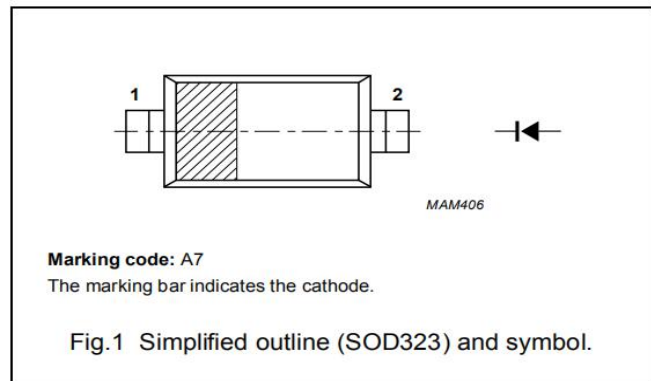
### APPLICATIONS

- General purpose switching in e.g. surface mounted circuits.

### DESCRIPTION

The BAS321 is a general purpose diode fabricated in planar technology and encapsulated in a plastic SOD323 package.

PIN	DESCRIPTION
1	cathode
2	anode



### ORDERING INFORMATION

TYPE NUMBER	PACKAGE		
	NAME	DESCRIPTION	VERSION
BAS321	-	plastic surface mounted package; 2 leads	SOD323

### LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{RRM}$	repetitive peak reverse voltage		-	250	V
$V_R$	continuous reverse voltage		-	200	V
$I_F$	continuous forward current	see Fig.2; note 1	-	250	mA
$I_{FRM}$	repetitive peak forward current	$t_p < 0.5 \text{ ms}$ ; $\delta \leq 0.25$	-	625	mA
$I_{FSM}$	non-repetitive peak forward current	square wave; $T_j = 25 \text{ }^\circ\text{C}$ prior to surge; see Fig.4			
		$t = 1 \text{ } \mu\text{s}$	-	9	A
		$t = 100 \text{ } \mu\text{s}$	-	3	A
		$t = 10 \text{ ms}$	-	1.7	A
$P_{tot}$	total power dissipation	$T_{amb} = 25 \text{ }^\circ\text{C}$ ; note 1	-	300	mW
$T_{stg}$	storage temperature		-65	+150	$^\circ\text{C}$
$T_j$	junction temperature		-	150	$^\circ\text{C}$

### Note

1. Device mounted on an FR4 printed circuit-board.

**CHARACTERISTICS**

$T_j = 25\text{ }^\circ\text{C}$  unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
$V_F$	forward voltage	see Fig.3 $I_F = 100\text{ mA}$	1	V
		$I_F = 200\text{ mA}$	1.25	V
$I_R$	reverse current	see Fig.5 $V_R = 200\text{ V}$	100	nA
		$V_R = 200\text{ V}; T_j = 150\text{ }^\circ\text{C}$	100	$\mu\text{A}$
$C_d$	diode capacitance	$f = 1\text{ MHz}; V_R = 0$ ; see Fig.6	2	pF
$t_{rr}$	reverse recovery time	when switched from $I_F = 30\text{ mA}$ to $I_R = 30\text{ mA}; R_L = 100\ \Omega$ ; measured at $I_R = 3\text{ mA}$ ; see Fig.8	50	ns

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th(j-s)}$	thermal resistance from junction to soldering point	$T_s = 90\text{ }^\circ\text{C}$ ; note 1	130	K/W
$R_{th(j-a)}$	thermal resistance from junction to ambient	note 2	366	K/W

**Notes**

1. Soldering point of cathode tab.
2. Device mounted on an FR4 printed circuit board.

**GRAPHICAL DATA**

