

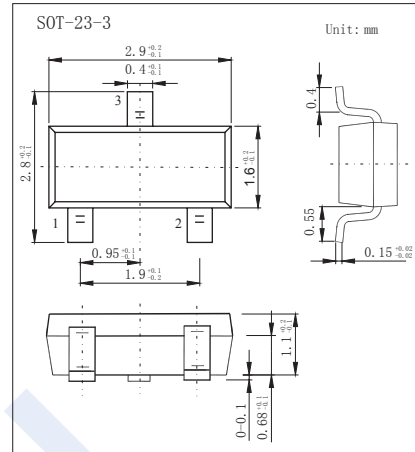
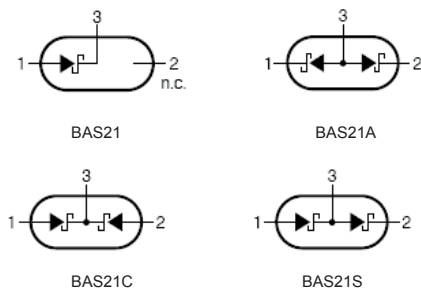
## Switching Diodes

### BAS21,A,C,S

#### (KAS21,A,C,S)

#### ■ Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- High Conductance
- For General Purpose Switching Applications



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

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_R$	250	V
Forward Current	$I_F$	200	mA
Power Dissipation	$P_D$	200	mW
Operating Junction Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

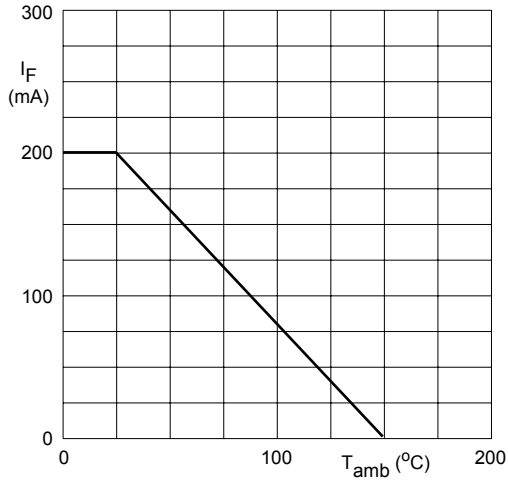
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\ \mu\text{A}$	250			V
Forward Voltage	$V_F$	$I_F=100\text{mA}$ $I_F=200\text{mA}$			1.0 1.25	V
Reverse Leakage	$I_R$	$V_R=200\text{V}$			100	nA
Junction Capacitance	$C_j$	$V_R=0\text{V}, f=1.0\text{MHz}$			5.0	pF
Reverse Recover Time	$T_{rr}$				50	nS

#### ■ Marking

NO.	BAS21	BAS21A	BAS21C	BAS21S
Marking	JS	JS2	JS3	JS4

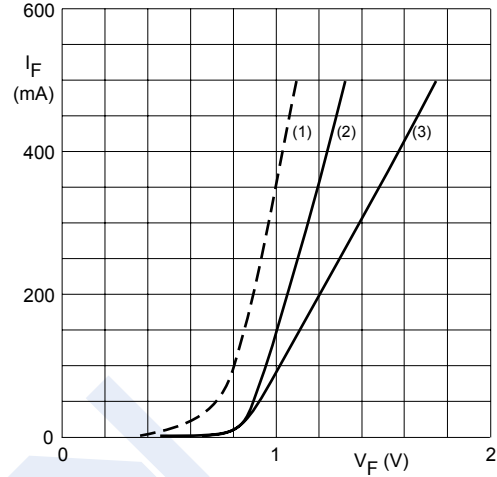
**BAS21,A,C,S**  
(KAS21,A,C,S)

■ Typical Characteristics



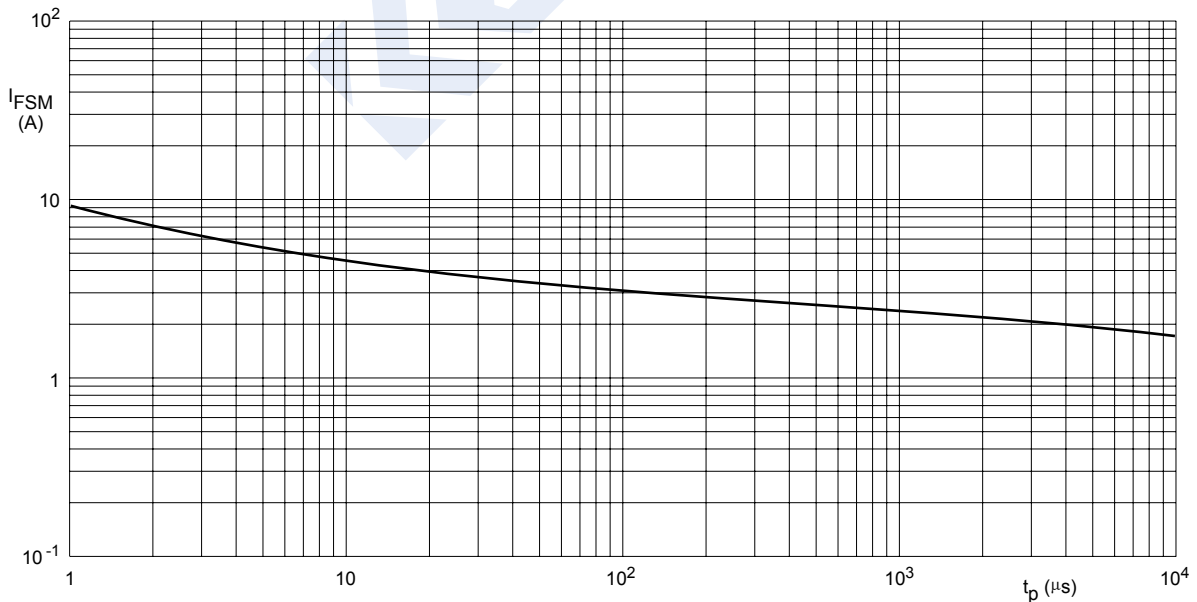
Device mounted on an FR4 printed-circuit board.

Fig.1 Maximum permissible continuous forward current as a function of ambient temperature.



- (1)  $T_j = 150^\circ\text{C}$ ; typical values.
- (2)  $T_j = 25^\circ\text{C}$ ; typical values.
- (3)  $T_j = 25^\circ\text{C}$ ; maximum values.

Fig.2 Forward current as a function of forward voltage.

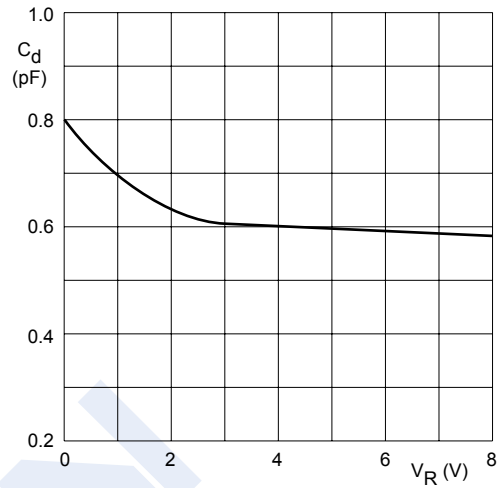
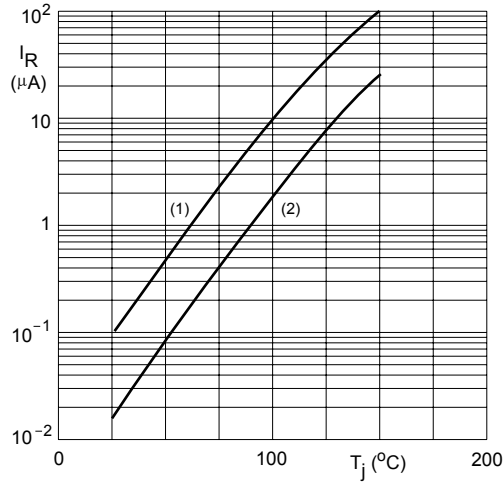


Based on square wave currents.  
 $T_j = 25^\circ\text{C}$  prior to surge.

Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

## BAS21,A,C,S (KAS21,A,C,S)

### ■ Typical Characteristics



(1)  $V_R = V_{Rmax}$ ; maximum values.  
 (2)  $V_R = V_{Rmax}$ ; typical values.

$f = 1 \text{ MHz}; T_j = 25 \text{ }^{\circ}C$ .

Fig.5 Reverse current as a function of junction temperature.

Fig.6 Diode capacitance as a function of reverse voltage; typical values.

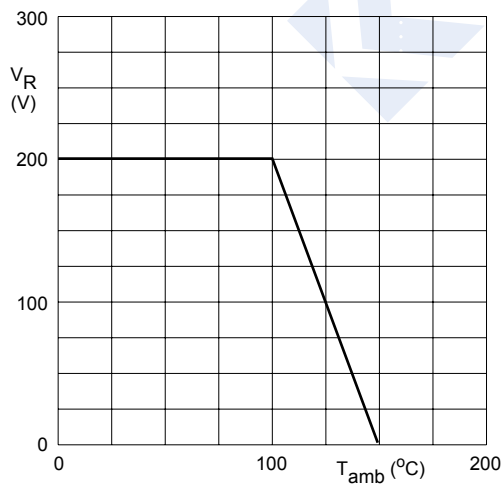


Fig.7 Maximum permissible continuous reverse voltage as a function of the ambient temperature.