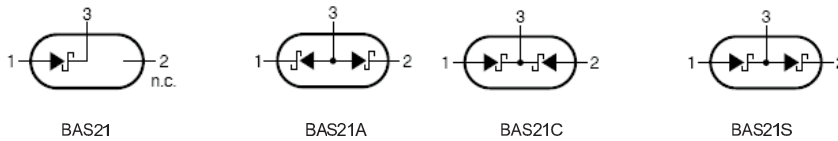
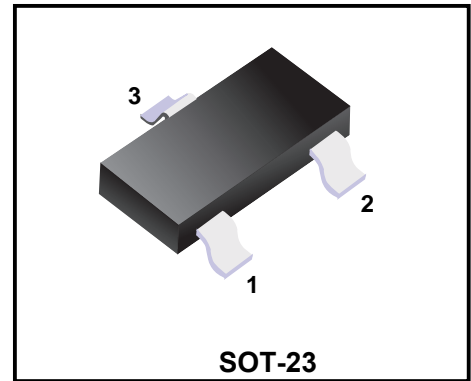


Switching Diodes

Features

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



Absolute Maximum Ratings (Ta=25°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	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

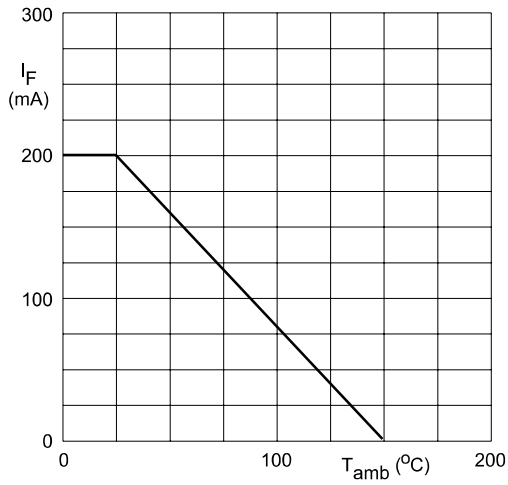
Electrical Characteristics (Ta=25°C unless otherwise specified.)

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V(BR)	I _R =100 μ A	250			V
Forward Voltage	V _F	I _F =100mA I _F =200mA			1.0 1.25	V
Reverse Leakage	I _R	V _R =200V			100	nA
Junction Capacitance	C _j	V _R =0V, f=1.0MHz			5.0	pF
Reverse Recover Time	T _{rr}				50	nS

Marking Code

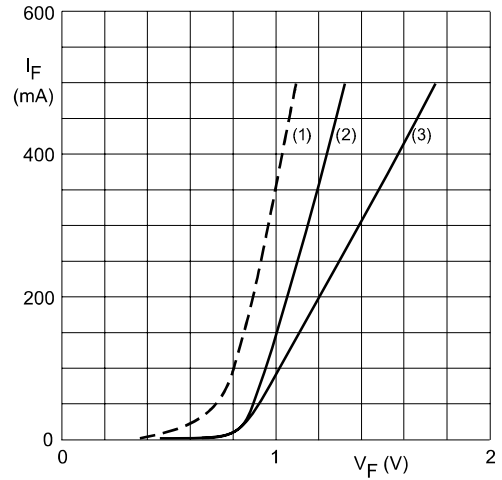
NO.	BAS21	BAS21A	BAS21C	BAS21S
Marking	JS	JS2	JS3	JS4

Typical Characteristics



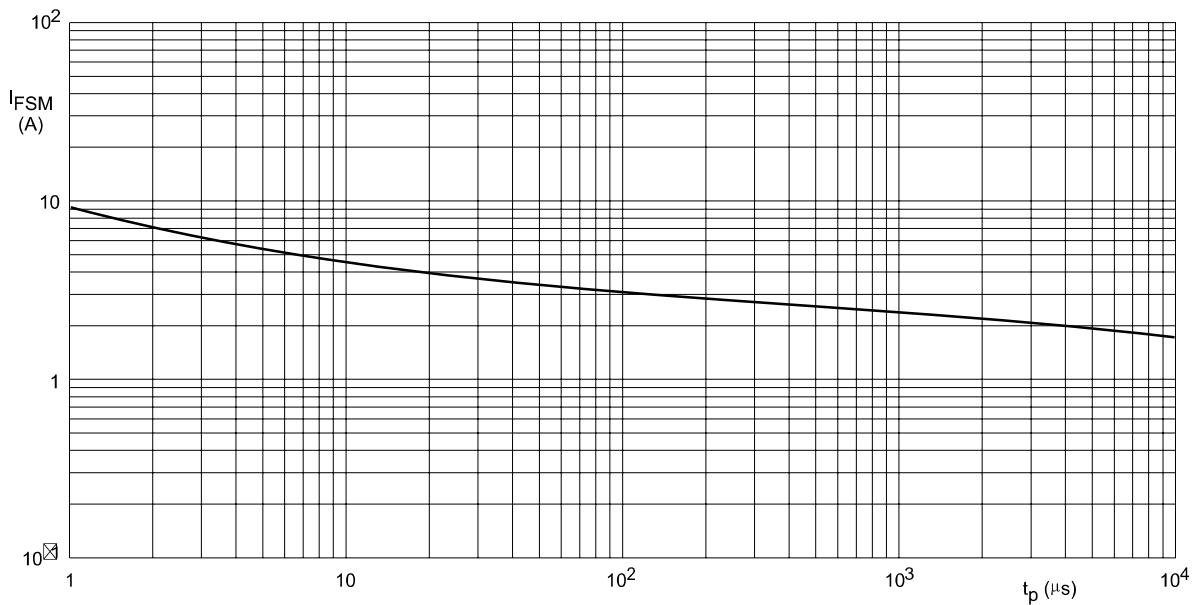
Device mounted on an FR4 printed-circuit board.

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.

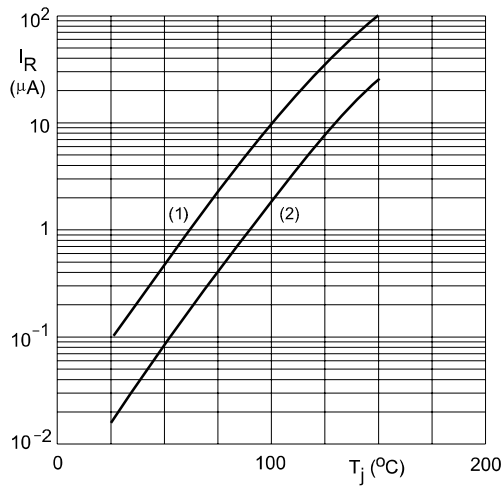
Fig.2 Forward current as a function of forward voltage.



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

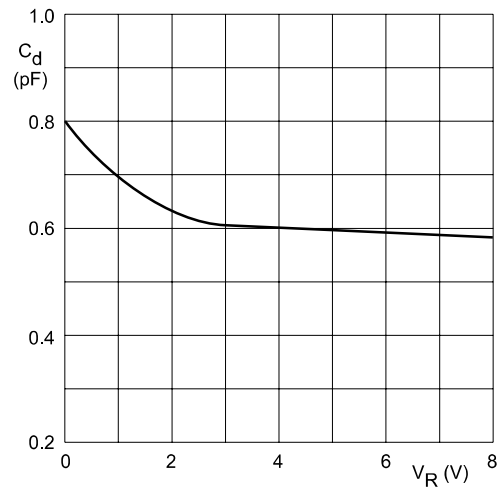
Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

Typical Characteristics



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

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



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

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

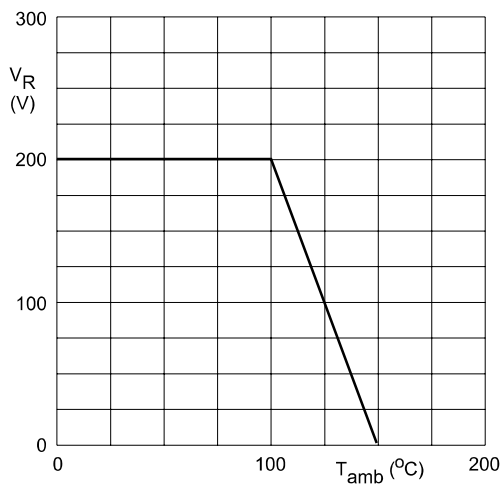


Fig.7 Maximum permissible continuous reverse voltage as a function of the ambient temperature.

Ordering information

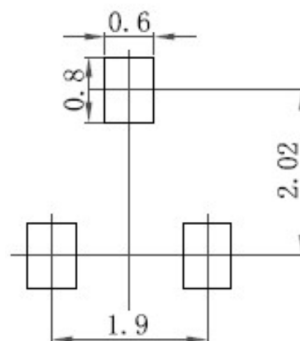
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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