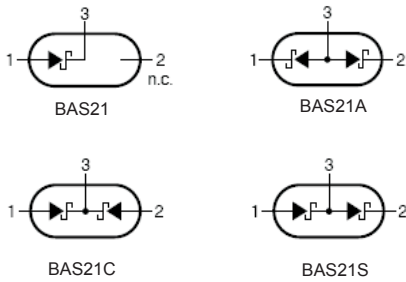


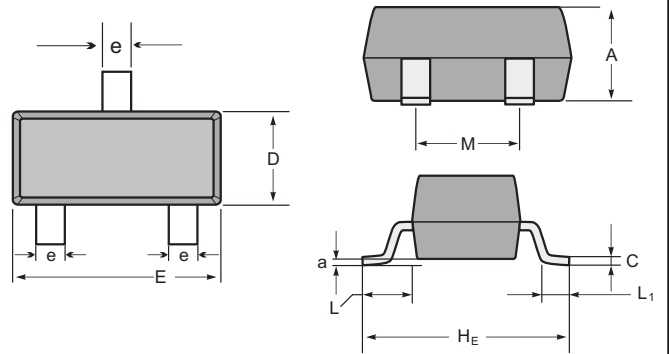
■ Features

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



■ Marking

NO.	BAS21	BAS21A	BAS21C	BAS21S
Marking	JS	JS2	JS3	JS4



SOT-23 mechanical data

UNIT	A	C	D	E	H _E	e	M	L	L ₁	a	
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

■ Absolute Maximum Ratings Ta = 25°C

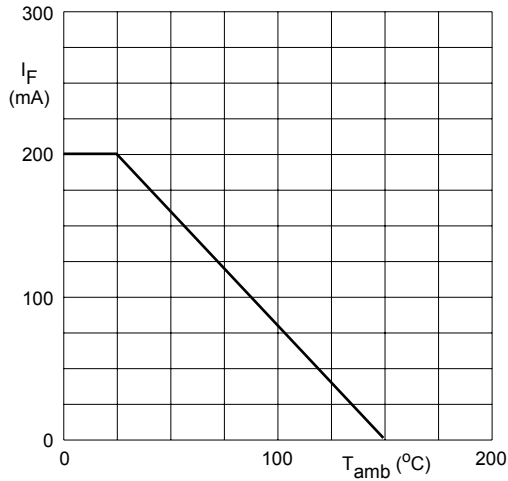
Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	250	V
Forward Current	I _F	200	mA
Power Dissipation	P _D	200	mW
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

BAS21 A/C/S

■ Electrical Characteristics Ta = 25°C

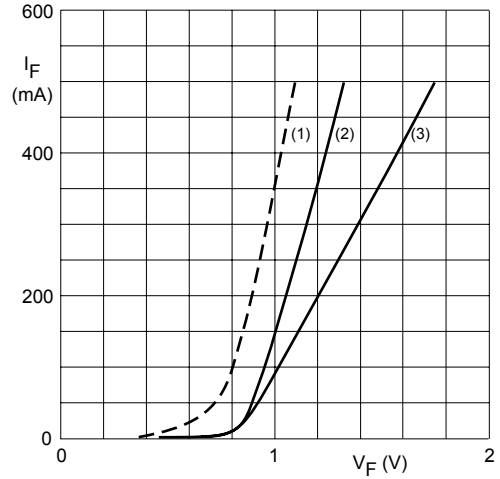
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V _(BR)	I _R =100 μ A	250			V
Forward Voltage	V _F	I _F =100mA I _F =200mA			1.0 1.25	V
Reverse Leakage	I _R	V _R =200V			100	nA
Junction Capacitance	C _j	V _R =0V, f=1.0MHz			5.0	pF
Reverse Recover Time	T _{rr}				50	nS

RATING AND CHARACTERISTIC CURVES (BAS21 A/C/S)



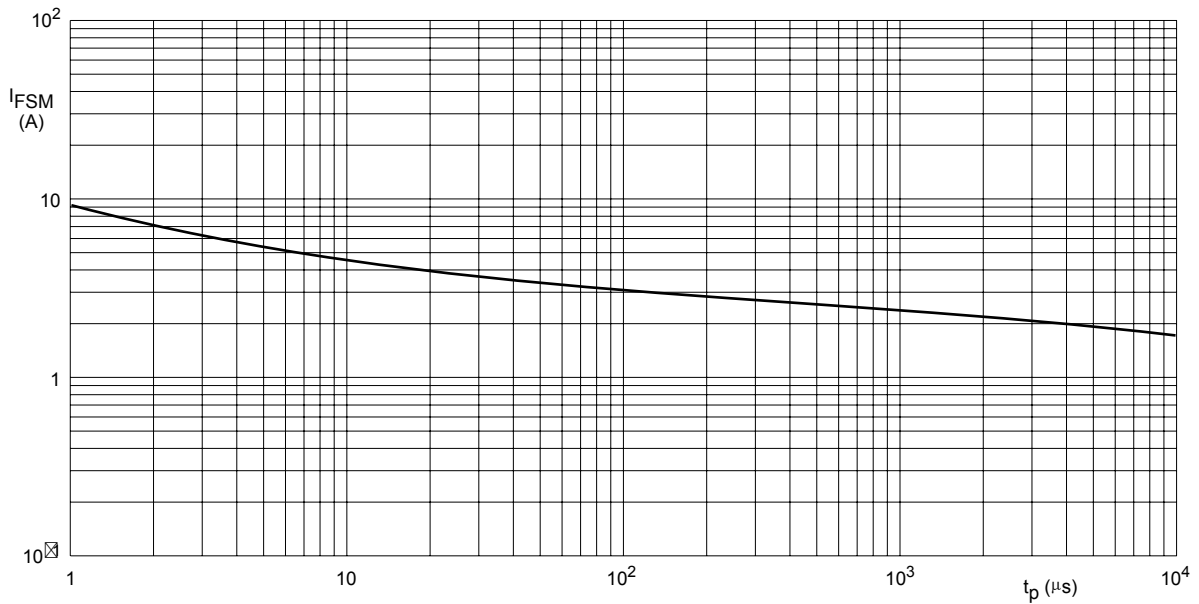
Device mounted on an FR4 printed-circuit board.

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



- (1) $T_j = 150$ °C; typical values.
- (2) $T_j = 25$ °C; typical values.
- (3) $T_j = 25$ °C; maximum values.

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

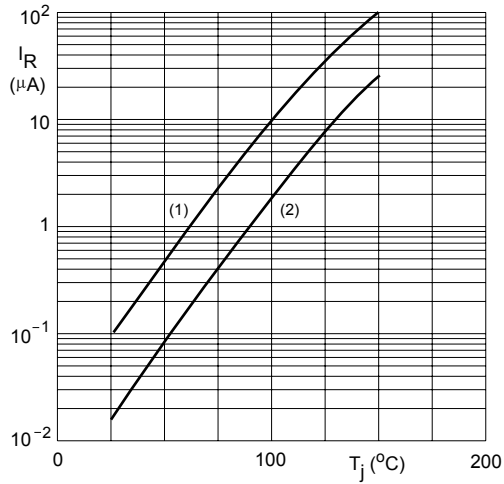


Based on square wave currents.
 $T_j = 25$ °C prior to surge.

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

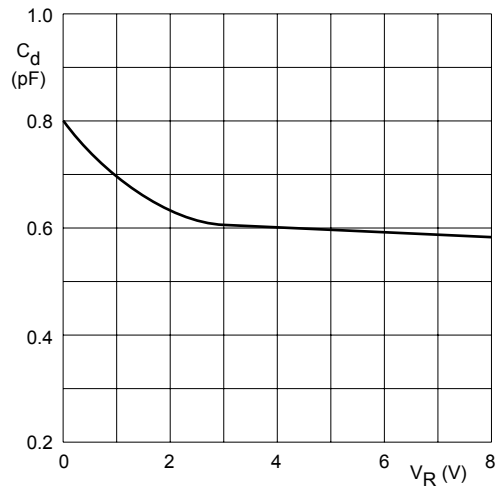
RATING AND CHARACTERISTIC CURVES (BAS21 A/C/S)

yp ca arac er s cs



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

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



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

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

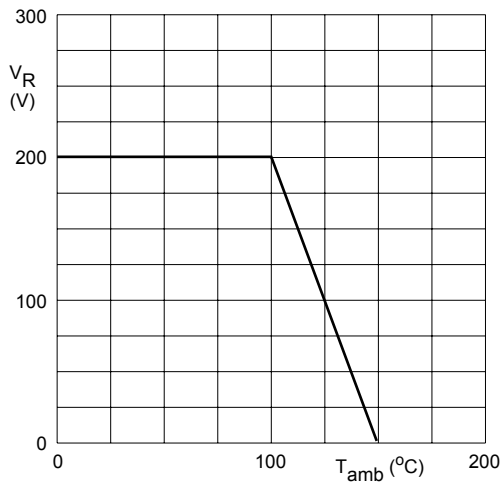


Fig.7 Maximum permissible continuous reverse voltage as a function of the ambient temperature.