



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

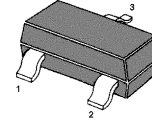
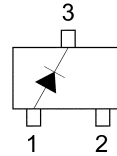
FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

BAS19, BAS20, BAS21

HIGH VOLTAGE SWITCHING DIODES

BAS19 Marking Code: **HA**
BAS20 Marking Code: **HB**
BAS21 Marking Code: **HC**



1. ANODE 3. CATHODE
SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

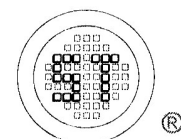
Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	BAS19	120	V
	BAS20	200	
	BAS21	250	
Continuous Forward Current	I _F	200	mA
Peak Forward Surge Current	I _{FM(surge)}	625	mA
Total Device Dissipation FR-5 Board ¹⁾ T _A =25 °C Derate above 25 °C	P _D	225	mW
		1.8	mW/°C
Thermal Resistance Junction to Ambient	R _{θJA}	556	°C/W
Total Device Dissipation Alumina Substrate ²⁾ T _A =25 °C Derate above 25 °C	P _D	300	mW
		2.4	mW/°C
Thermal Resistance Junction to Ambient	R _{θJA}	417	°C/W
Junction and Storage Temperature Range	T _J , T _S	-55 to +150	°C

Characteristics at T_j = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I _F = 100 mA	V _F	-	1	V
	V _F	-	1.25	V
Reverse Breakdown Voltage at I _{BR} = 100 μA	BAS19	120	-	V
	BAS20	200	-	V
	BAS21	250	-	V
Reverse Voltage Leakage Current at V _R = 100 V	BAS19	-	0.1	μA
	BAS20	-	0.1	μA
	BAS21	-	0.1	μA
	BAS19	-	100	μA
	BAS20	-	100	μA
	BAS21	-	100	μA
Diode Capacitance at f = 1 MHz	C _d	-	5	pF
Reverse Recovery Time at I _F = I _R = 30 mA, I _{R(REC)} = 3 mA, R _L = 100 Ω	t _{rr}	-	50	ns

¹⁾ FR-5=1 x 0.75 x 0.062 in.

²⁾ Alumina=0.4 x 0.3 x 0.024in.99.5% alumina.



SEMTECH

Dated : 19/12/2005