















ESD

**TVS** 

LDO

Diode

Sensor

DC-DC

# **Product Specification**

Domestic Part Number	EVBAS19-S1, EVBAS20-S1
Overseas Part Number	BAS19, BAS20
▶ Equivalent Part Number	BAS19, BAS20

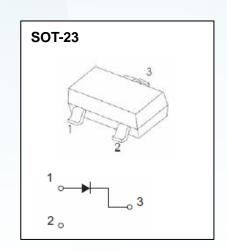
"S1" means SOT-23



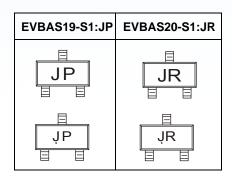


#### **FEATURE**

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



#### **MARKING:**



Solid dot = Green molding compound device, if none, the normal device.

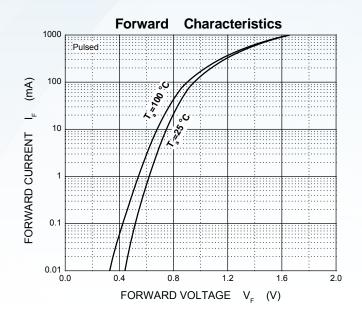
#### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

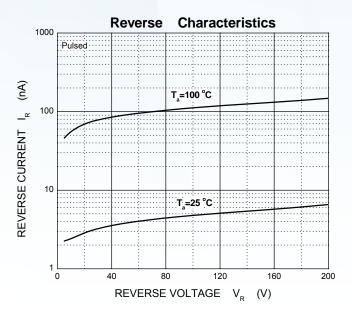
Symbol	Parameter	BAS19-EV	BAS20-EV	Unit
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	120	200	V
V <sub>RWM</sub>	Working Peak Reverse Voltage	150	V	
Io	Average Rectified Output Current	200		mA
I <sub>FSM</sub>	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2.5		Α
$P_d$	Power Dissipation	250		mW
R <sub>0JA</sub>	Thermal Resistance from Junction to Ambient 500			°C/W
$T_J$ , $T_{stg}$	<b>T</b> <sub>stg</sub> Operation Junction and Storage Temperature Range -55 ∼ +150			°C

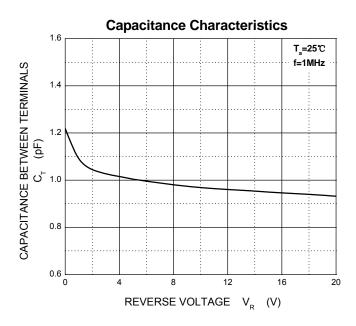
#### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)

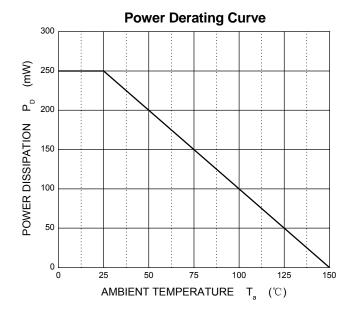
Parameter		Symbol	Test Condition	Min	Тур	Max	Unit
Reverse breakdown voltage	EVBAS19-S1	V	I <sub>R</sub> =100µA	120			V
	EVBAS20-S1	$V_{(BR)}$	ΙR-100μΑ	200			V
Reverse current	EVBAS19-S1	L	V <sub>R</sub> =100V			0.1 L	μA
	EVBAS20-S1	I <sub>R</sub>	V <sub>R</sub> =150V			0.1	μΑ
Forward voltage		V <sub>F</sub>	I <sub>F</sub> =100mA			1	V
			I <sub>F</sub> =200mA			1.25	V
Diodes capacitance		$C_D$	V <sub>R</sub> =0V, f=1MHz			5	pF
Reveres recovery time		t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =30mA,I <sub>rr</sub> =0.1*I <sub>R</sub>			50	ns





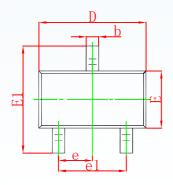


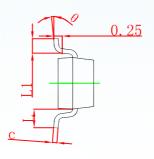


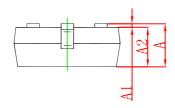




### **SOT-23 Package Outline Dimensions**

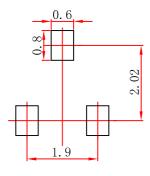






Symbol	Dimensions	In Millimeters	Dimensions In Inches		
	Min	Max	Min	Max	
Α	0.900	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
Е	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
е	0.950 TYP		0.037	7 TYP	
e1	1.800	2.000	0.071	0.079	
Ĺ	0.550 REF		0.022 REF		
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	

#### **SOT-23 Suggested Pad Layout**



- 1.Controlling dimension:in millimeters.
- 2.General tolerance:± 0.05mm.
  3.The pad layout is for reference purposes only.



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