Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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Technical Data
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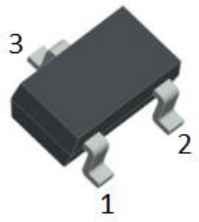
BAS19W-BAS21W SURFACE MOUNT FAST SWITCHING DIODE

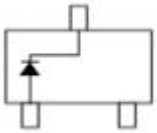


SOT-323

Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching
- Plastic Material – UL Recognition Flammability Classification 94V-O
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Mechanical Characteristics

- Case: SOT-323, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Weight: 0.006g
- Mounting Position: Any

Maximum Ratings@T_A=25°C unless otherwise specified

Characteristic	Symbol	BAS19W	BAS20W	BAS21W	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	120	200	250	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	150	200	V
RMS Reverse Voltage(Note 1)	$V_{R(RMS)}$	70	105	140	V
Forward Continuous Current (Note 1)	I_{FM}	400			mA
Average Rectified Output Current(Note 1)	Io	200			mA
Non-Repetitive Peak Forward Surge Current @t=1us	I_{FSM}	2.5			A
Power Dissipation	P_D	200			mW
Thermal Resistance, Junction to Ambient(Note 1)	$R_{\theta JA}$	625			°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +150			°C

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Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Units	Test Condition
Forward Voltage*	V_F	-	1.00 1.25	V	@I_F=100mA @I_F=200mA
Reverse Leakage Current*	I_R	-	100	nA	@Rated DC Blocking Voltage
Capacitance between terminals	C_T	-	5	pF	V_R=0V, f=1.0MHz
Reverse Recovery Time	t_{rr}	-	50	ns	I_F=I_R=30mA, I_{RR}=0.1×I_R, R_L=100Ω

* Pulse width < 300 μs, duty cycle < 2%
Note: 1. Device mounted on fiberglass substrate 40×40×1.5mm

Ratings and Characteristics Curves

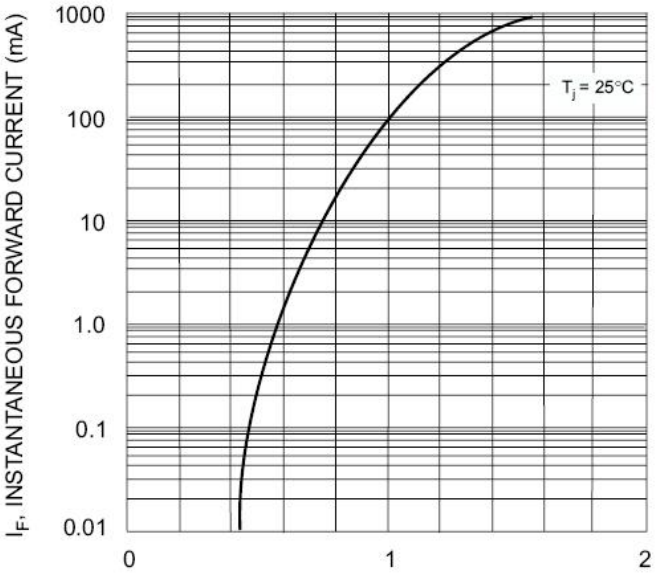

Fig. 1 Forward Characteristics

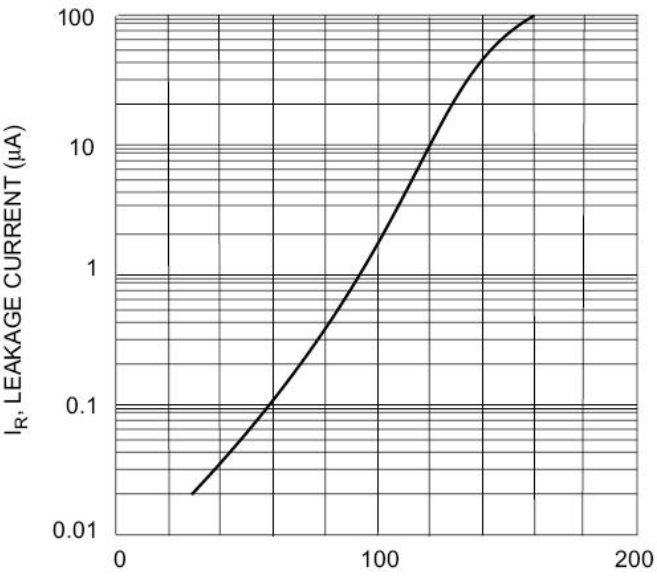

Fig. 2 Leakage Current vs Junction Temperature

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RoHS

Ordering Information

Device	Package	Shipping
BAS19W-BAS21W	SOT-323 (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

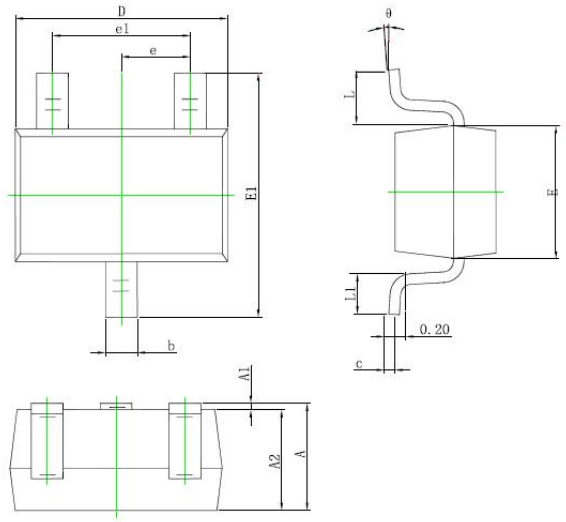
Marking before 16441(Date Code)

Part Number	Device Marking Code
BAS19W	A8
BAS20W	A80
BAS21W	A82

Marking from 16441(Date Code)

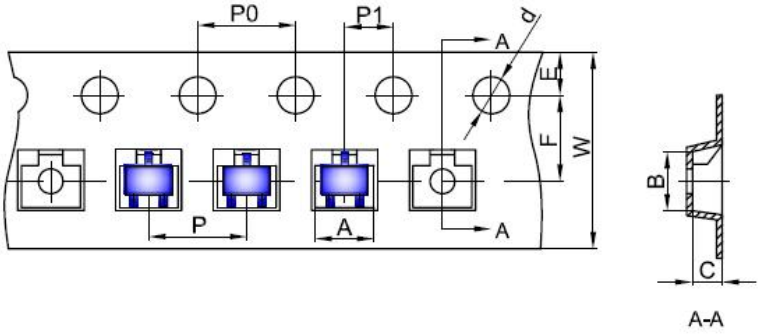
Part Number	Device Marking Code
BAS19W	KA8
BAS20W	KT2
BAS21W	KT3

Mechanical Dimensions SOT-323



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Carrier Tape Specification SOT-323



SYMBOL	Millimeters	
	Min.	Max.
A	2.20	2.30
B	2.50	2.60
C	1.14	1.24
d	1.45	1.65
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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