



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

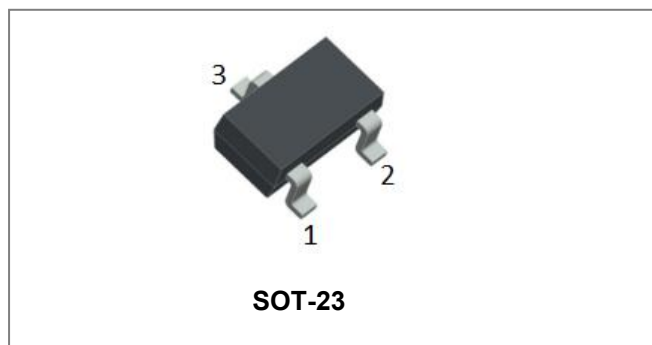
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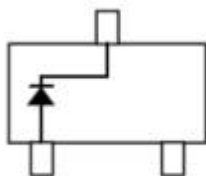
BAS16 SURFACE MOUNT FAST SWITCHING DIODE



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-23, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams(approx.)
- Mounting Position: Any
- Marking: A6

Maximum Ratings@T_A=25°C unless otherwise specified

Characteristic	Symbol	Limits	Units
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	75	V
Forward Continuous Current(Note 1)	I _F	300	mA
Average Rectified Output Current(Note 1)	I _O	200	mA
Peak Forward Surge Current(Note 1) @t<1.0us	I _{FSM}	2.0	A
Power Dissipation(Note 1)	P _d	350	mW
Typical Thermal Resistance, Junction to Ambient Air	R _{θJA}	357	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

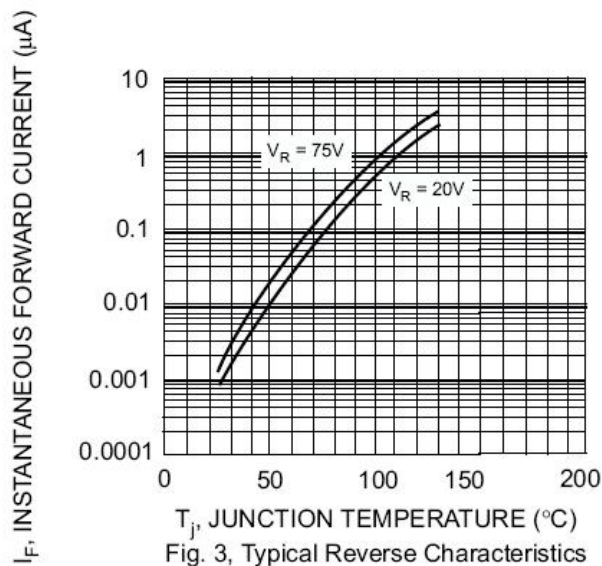
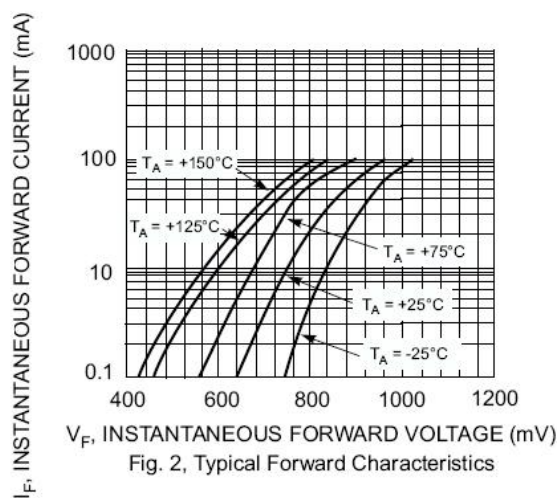
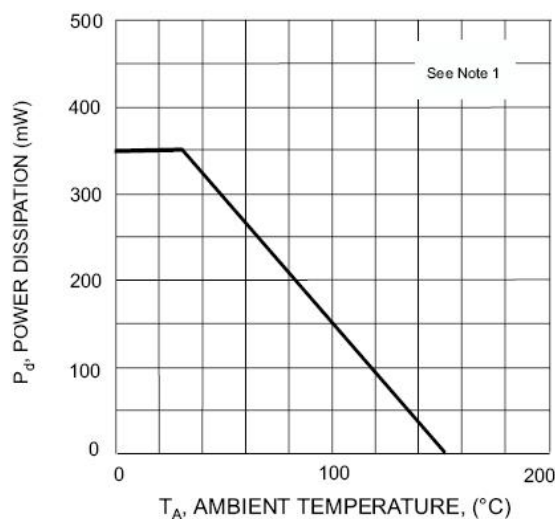
Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage*	$V_{(BR)R}$	75	-	V	@ $I_{BR}=100\mu\text{A}$
Forward Voltage*	V_F	-	0.855	V	@ $I_F=10\text{mA}$
Reverse Leakage Current*	I_R	-	1.0	μA	@ $V_R=75\text{V}$
Junction Capacitance	C_j	-	2.0	pF	$V_R=0\text{V}$, $f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	6.0	ns	$I_F=I_R=10\text{mA}$, $I_{RR}=0.1 \times I_R$, $R_L=100\Omega$

* Pulse width $< 300 \mu\text{s}$, duty cycle $< 2\%$

Note: 1. Device mounted on fiberglass substrate $40 \times 40 \times 1.5\text{mm}$

Ratings and Characteristics Curves

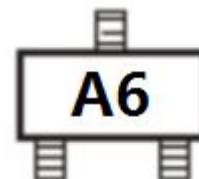


Ordering Information

Device	Package	Shipping
BAS16	SOT-23 (Pb-Free)	3000pcs / reel

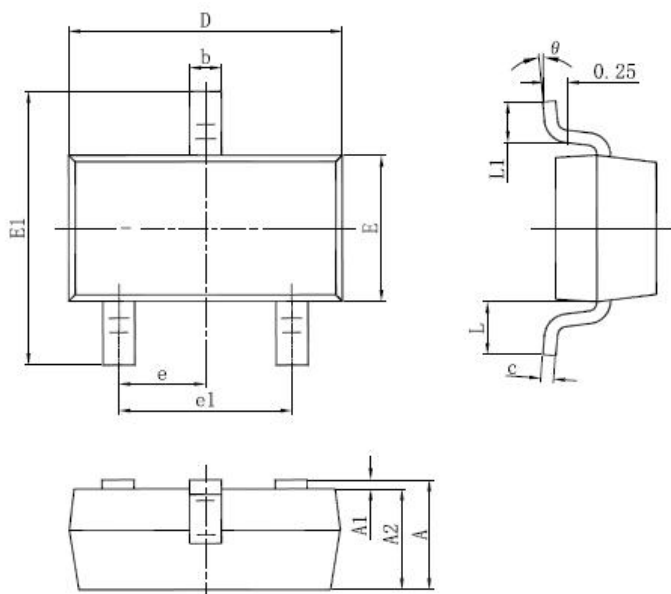
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



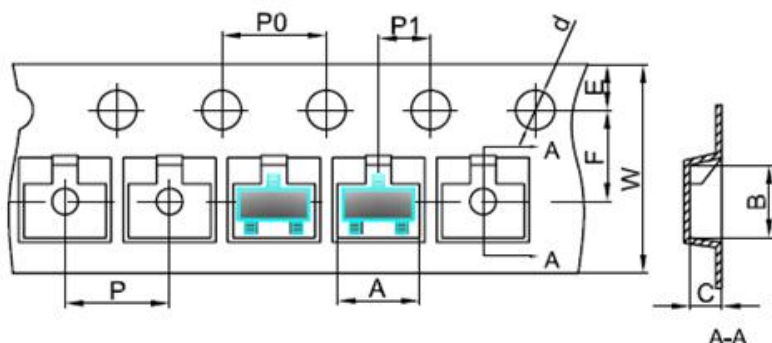
A6 = Marking Code

Mechanical Dimensions SOT-23



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.890	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
c	0.076	0.170	0.003	0.007
D	2.650	3.050	0.104	0.120
E	1.190	1.400	0.047	0.055
E1	2.100	2.550	0.083	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.780	2.050	0.070	0.081
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Carrier Tape Specification SOT-23



SYMBOL	Millimeters	
	Min.	Max.
A	3.05	3.25
B	2.67	2.87
C	1.12	1.32
d	1.40	1.60
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

Technical Data
Data Sheet N0583, Rev. A



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