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!

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Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

BAS316

High Speed Switching Diode 400mW

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Surface Mount Package Ideally Suited for Automatic Insertion
- High switching speed: max. 4ns
- Continuous reverse voltage: max. 100V
- Repetitive peak reverse voltage: max. 100V
- Repetitive peak forward current: max. 500mA
- Halogen free available upon request by adding suffix "-HF"

Mechanical Data

- Marking: A6
- Polarity: Indicated by Cathode Band

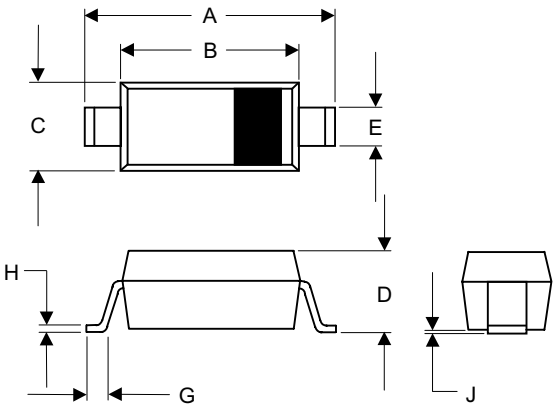
Maximum Ratings @25°C Unless Otherwise Specified

Parameter	Symbol	Limits	Unit
DC Reverse Voltage	V_R	100	V
Forward Current	I_F	250	mA
Total Device Dissipation	P_D	400	mW
Junction and Storage temperature	T_j, P_{stg}	-65~+150	℃
Non-repetitive peak forward current t=1us t=1ms t=1s	I_{FSM}	 4 1 0.5	A

Electrical Characteristics @ 25°C Unless Otherwise Specified

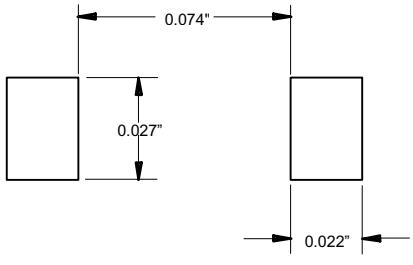
Parameter	Symbol	Test Conditons	MIN	MAX	UNIT
Reverse breakdown voltage	V_{BR}	I_R=100uA	100	…	V
Forward voltage	V_F	I_F=1mA	…	715	mV
		I_F=10mA	…	855	
		I_F=50mA	…	1000	
		I_F=150mA	…	1250	
Reverse leakage current	I_R	V_R=25V	…	0.03	uA
		V_R=75V	…	1	
Reverse recovery time	T_{rr}	I_F=I_R=10mAdc, R_L=100Ω	…	4	ns
Diode capacitance	C_D	V_R=0V,f =1MHz	…	1.5	pF

SOD-323



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

SUGGESTED SOLDER PAD LAYOUT



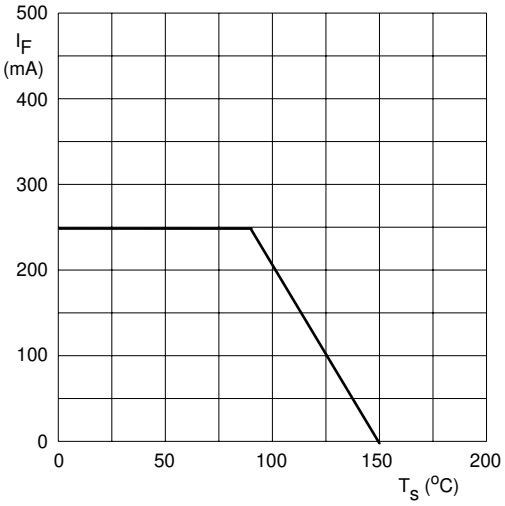
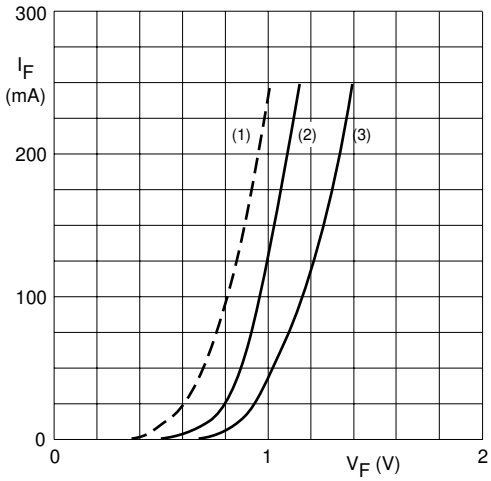
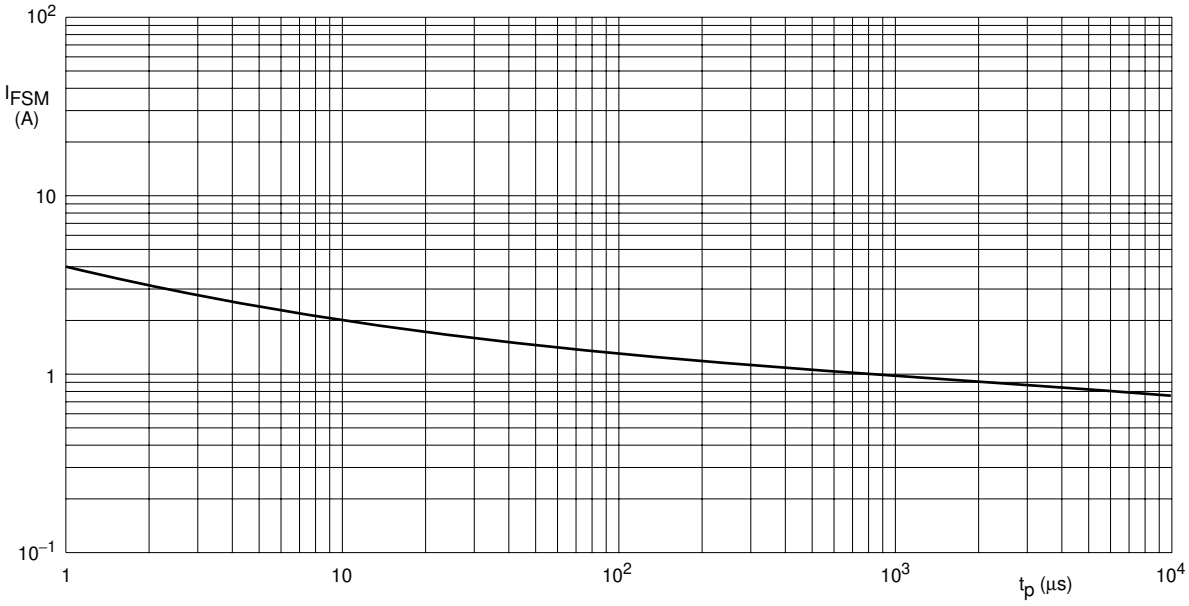


Fig.1 Maximum permissible continuous forward current as a function of soldering point temperature.



(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.

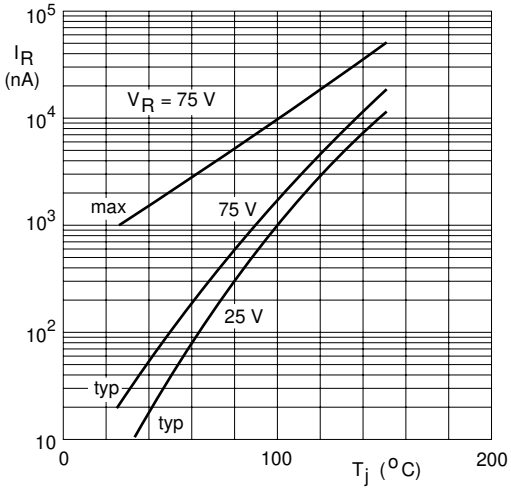
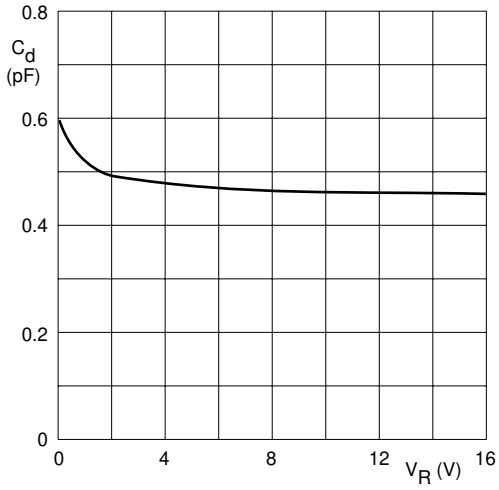


Fig.4 Reverse current as a function of junction temperature.



f = 1 MHz; T_j = 25 °C.

Fig.5 Diode capacitance as a function of reverse voltage; typical values.

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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