



Micro Commercial Components



Micro Commercial Components  
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# BAS516

## Switching Diode

### Features

- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Ultra-Small Surface Mount Package
- High Switching Speed
- For General Purpose Switching Applications
- Marking : 61
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

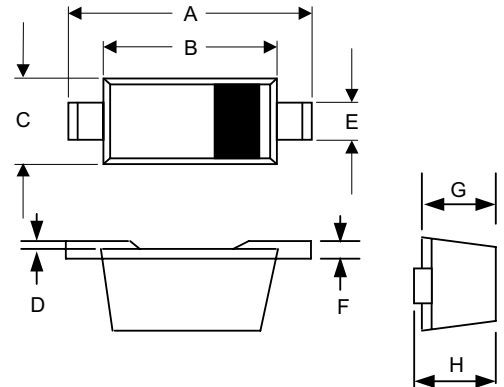
### Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

### Electrical Characteristics @ 25°C Unless Otherwise Specified

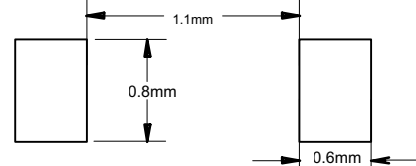
DC Reverse Voltage	$V_R$	75V	
Forward Current	$I_F$	250mA	
Peak Forward Surge Current	$I_{FSM}$	500mA	
Maximum Instantaneous Forward Voltage	$V_F$	715mV 815mV 1000mV 1250mV	$I_F = 1mA$ $I_F = 10mA;$ $I_F = 50mA$ $I_F = 150mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.03 $\mu A$ 1 $\mu A$	$V_R=25Volts$ $V_R=75Volts$
Typical Diode Capacitance	$C_D$	1pF	Measured at 1.0MHz, $V_R=0V$
Junction temperature	$T_j$	150°C	
Reverse Recovery Time	$T_{rr}$	4nS	$I_F=I_R=10mAdc,$ $V_R = 0V$ $R_L=100\Omega$

### SOD-523



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.059	.067	1.50	1.70	
B	.043	.051	1.10	1.30	
C	.030	.033	0.75	0.85	
D	.001	.003	0.01	0.07	
E	.010	.014	0.25	0.35	
F	.003	.006	0.08	0.15	
G	.020	.028	0.50	0.70	
H	.020	.031	0.51	0.77	

Suggested Solder Pad Layout



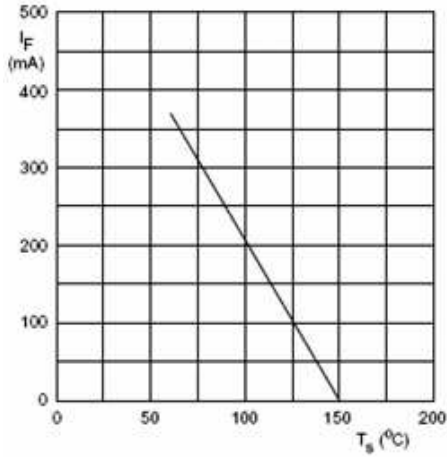
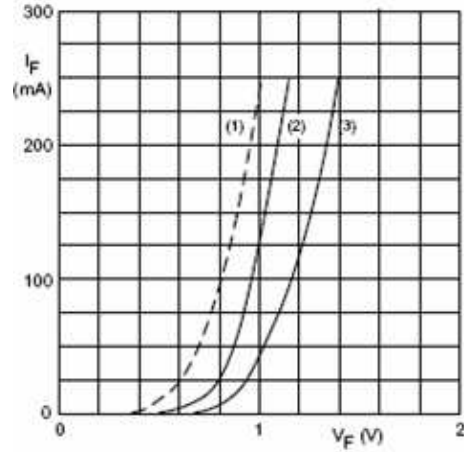
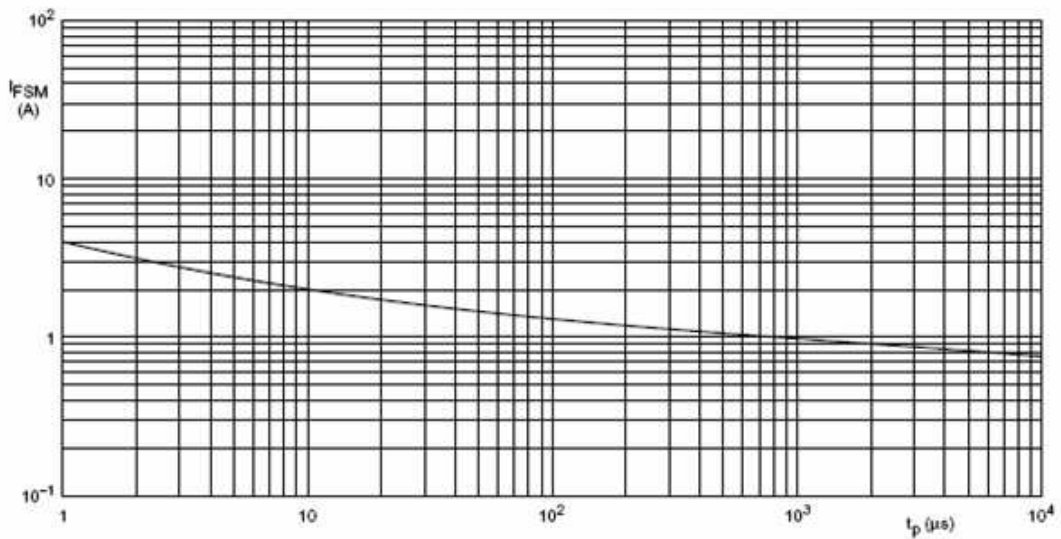


Fig.1 Maximum permissible continuous forward current as a function of soldering point temperature.



- (1)  $T_j = 150$  °C; typical values.
- (2)  $T_j = 25$  °C; typical values.
- (3)  $T_j = 25$  °C; maximum values.

Fig2 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.



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

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

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