

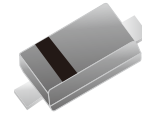
## BAS516H-HF

Reverse Voltage: 75 Volts

Forward Current: 250 mA

RoHS Device

Halogen Free



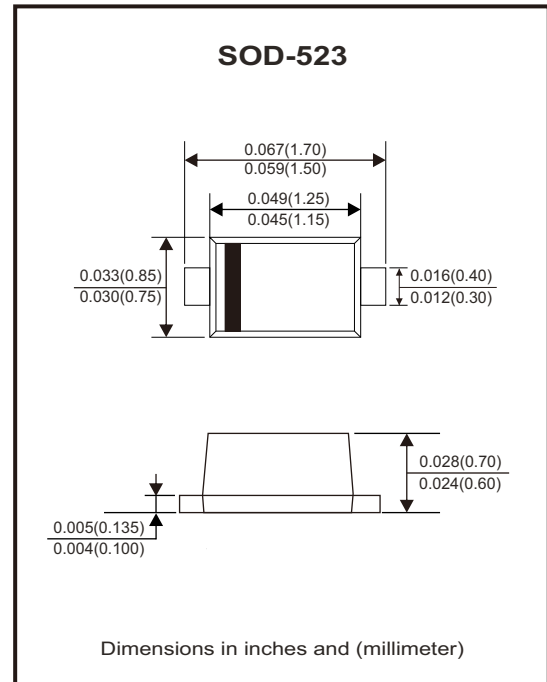
### Features

- Small package.
- Low reverse current.
- Fast switching speed.
- Surface mount package Ideally suited for automatic Insertion.

### Mechanical data

- Case: SOD-523 standard package,
- Terminals: Solderable per MIL-STD-750, method 2026

### Circuit Diagram



### Maximum Ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	100	V
Peak repetitive reverse voltage	$V_{RRM}$	75	V
Working peak reverse voltage	$V_{RWM}$		
RMS reverse voltage	$V_{R(RMS)}$	53	V
Average rectified output current	$I_o$	250	mA
Max. Peak forward surge current @ $t=8.3\text{ms}$	$I_{FSM}$	2	A
Power dissipation	$P_D$	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	$^{\circ}\text{C/W}$
Junction temperature	$T_J$	150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

## Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse voltage	$I_R=100\mu\text{A}$	$V_{(BR)}$	75			V
Reverse current	$V_R=25\text{V}$	$I_R$			30	nA
	$V_R=75\text{V}$				1	$\mu\text{A}$
Forward voltage	$I_F=1\text{mA}$	$V_F$			0.715	V
	$I_F=10\text{mA}$				0.855	V
	$I_F=50\text{mA}$				1	V
	$I_F=150\text{mA}$				1.25	V
Total capacitance	$V_R=0\text{V}, f=1\text{MHz}$	$C_{tot}$			1	pF
Reverse recovery time	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$	$t_{rr}$			4	ns

## Rating and Characteristic Curves (BAS516H-HF)

Fig.1 - Forward Characteristics

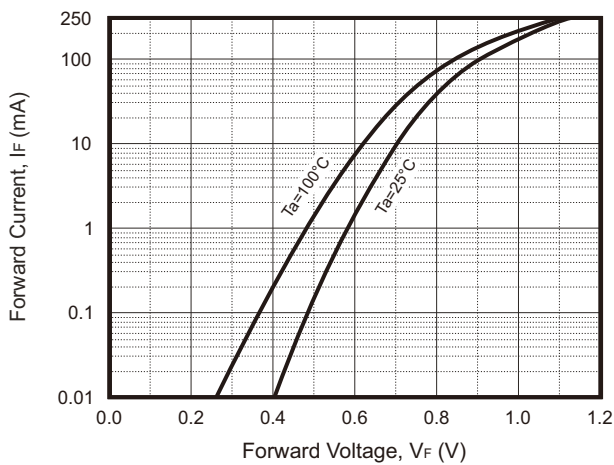


Fig.2 - Reverse Characteristics

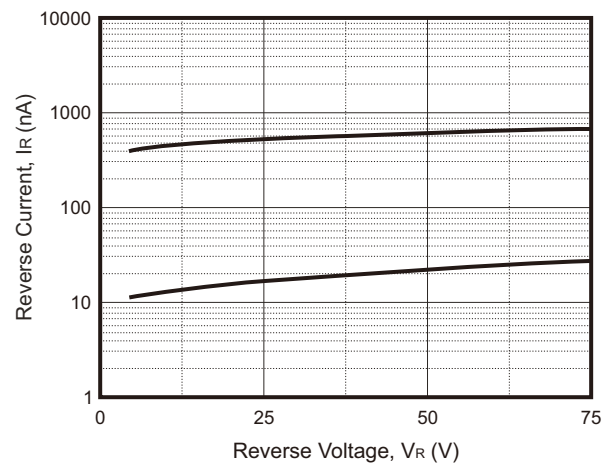


Fig.3 - Capacitance Characteristics

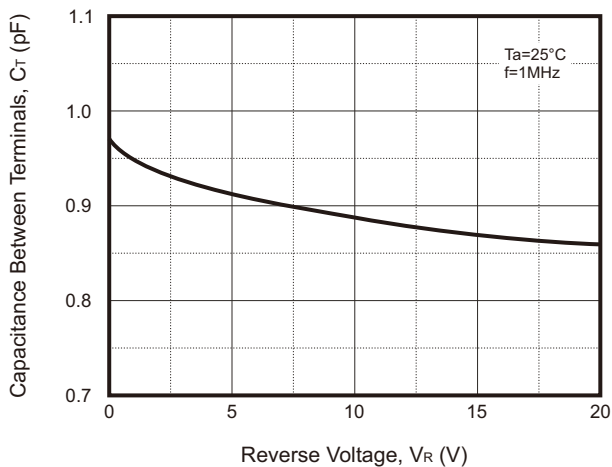
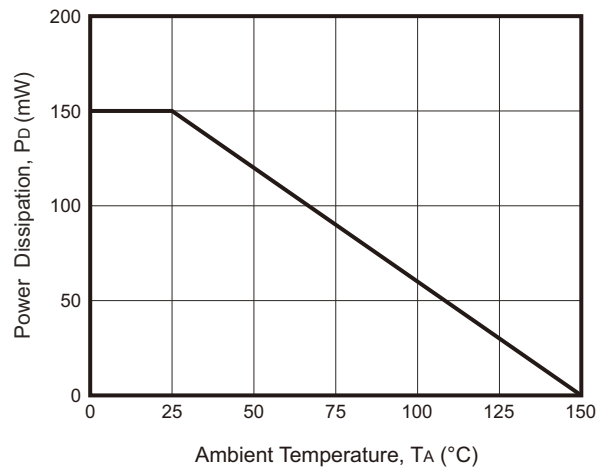
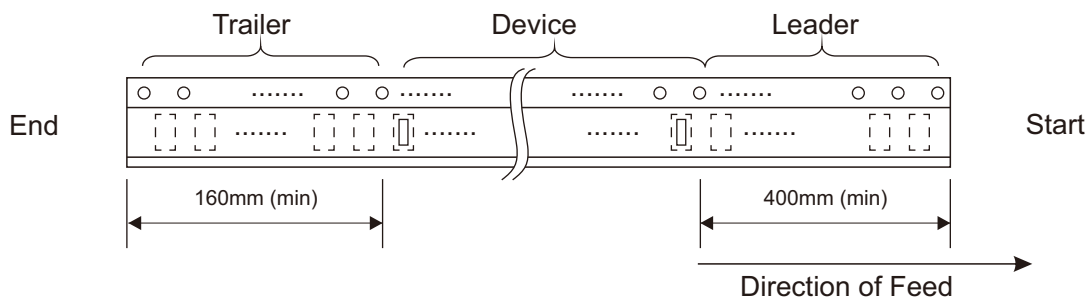
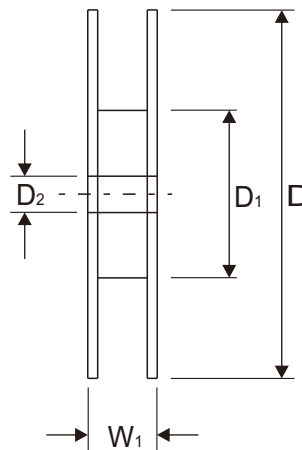
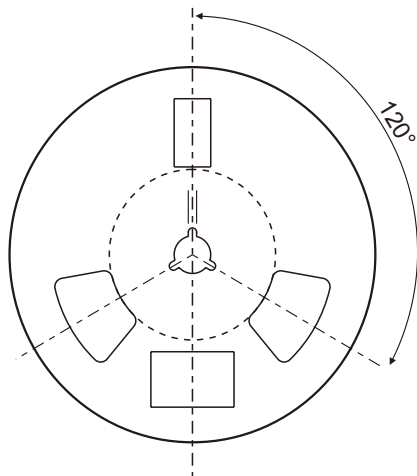
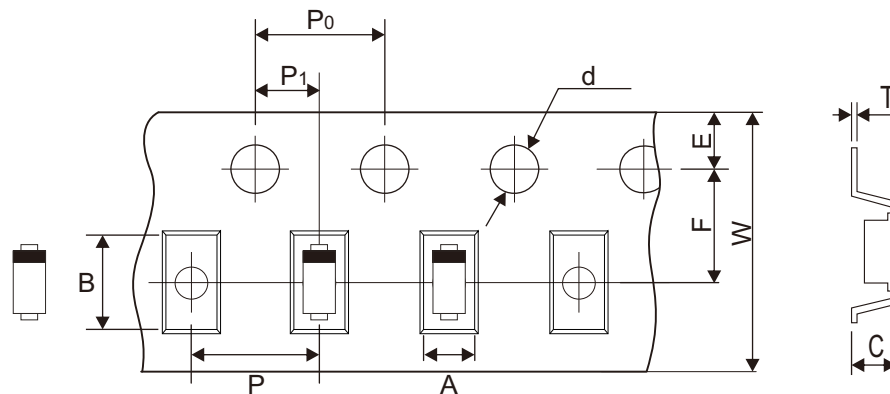


Fig.4 - Power Derating Curve



## Reel Taping Specification (For BAS516H-F-HF)

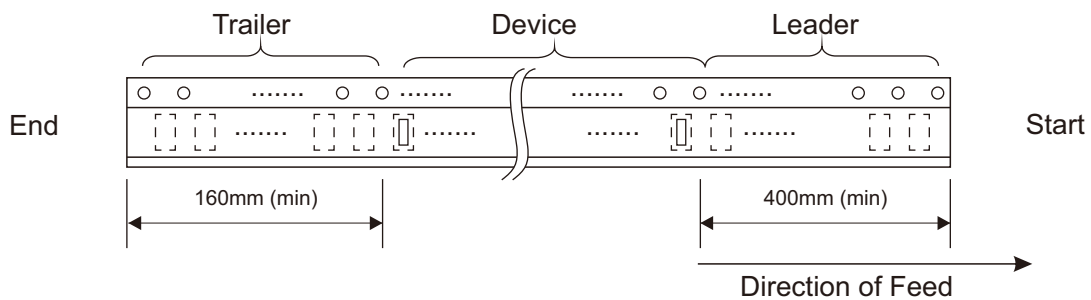
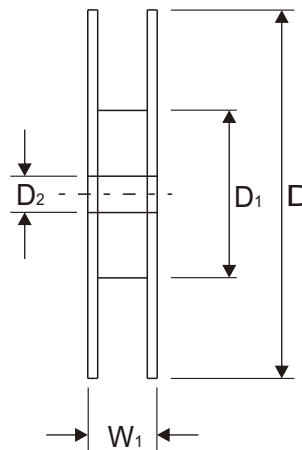
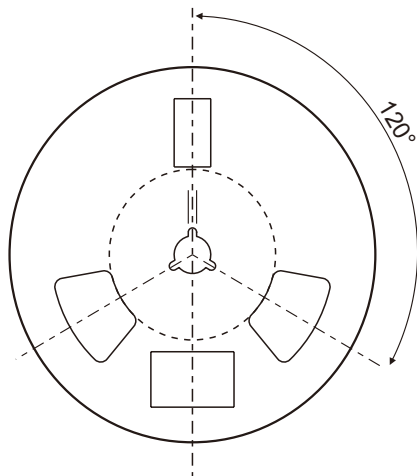
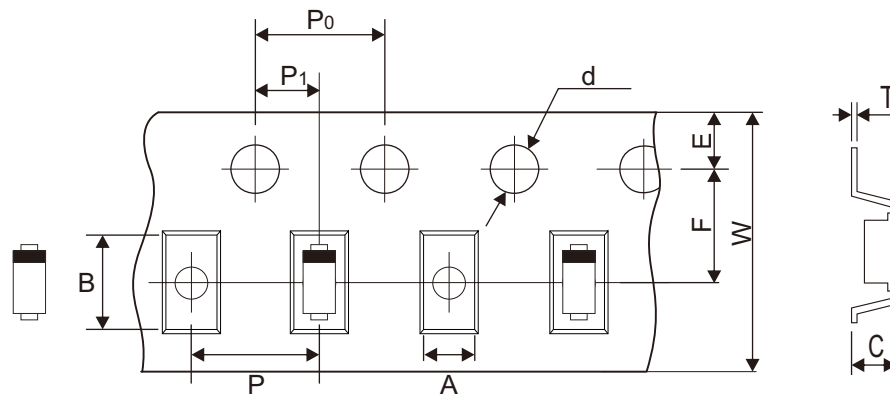


SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	See Note 1			1.50 ± 0.10	178 ± 2.00	50.00 Min.	13.00 ± 0.50
	(inch)	See Note 1			0.059 ± 0.004	7.008 ± 0.079	1.968 Min.	0.512 ± 0.020

SOD-523	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.60 Max.	8.30 Max.	14.40 Max.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.024 Max.	0.315 Max.	0.560 Max.

Notes: 1. A, B, and C are determined by component size. The clearance between the components and the cavity must be within 0.05mm min. to 0.50mm max.

## Reel Taping Specification (For BAS516H-H-HF)



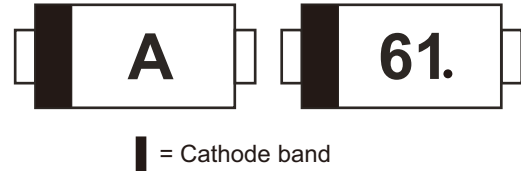
SOD-523	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	See Note 1			1.50 ± 0.10	178 ± 2.00	50.00 Min.	13.00 ± 0.50
	(inch)	See Note 1			0.059 ± 0.004	7.008 ± 0.079	1.968 Min.	0.512 ± 0.020

SOD-523	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.60 Max.	8.30 Max.	14.40 Max.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.024 Max.	0.315 Max.	0.560 Max.

Notes: 1. A, B, and C are determined by component size. The clearance between the components and the cavity must be within 0.05mm min. to 0.50mm max.

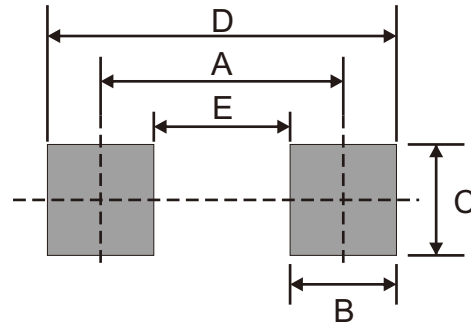
## Marking Code

Part Number	Marking Code	
BAS516H-F-HF	A	61.
BAS516H-H-HF		



## Suggested P.C.B. PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.42	0.056
B	0.60	0.024
C	0.70	0.028
D	2.02	0.080
E	0.82	0.032



Note: 1. The pad layout is for reference purpose only.

## Standard Packaging

Case Type		REEL PACK	
		REEL (pcs)	Reel Size (inch)
SOD-523	BAS516H-F-HF	8,000	7
	BAS516H-H-HF	3,000	