

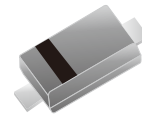
BAS516H-HF

Reverse Voltage: 75 Volts

Forward Current: 250 mA

RoHS Device

Halogen Free



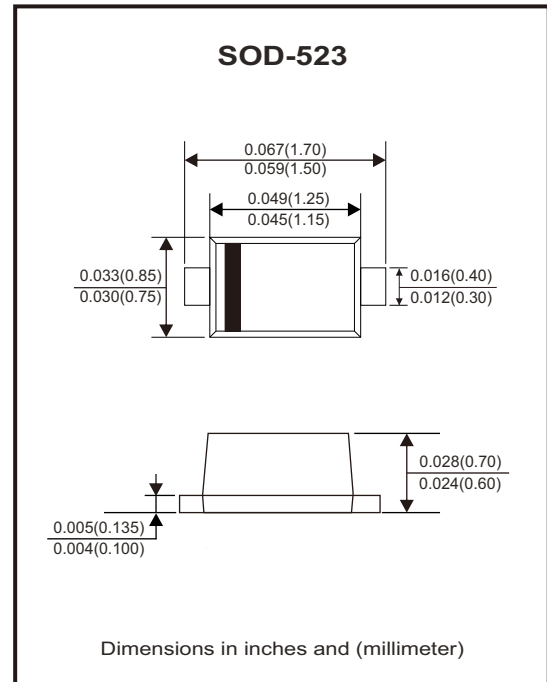
Features

- 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 TA=25°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=8.3ms	I_{FSM}	2	A
Power dissipation	P_D	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	°C/W
Junction temperature	T_J	150	°C
Storage temperature range	T_{STG}	-55 ~ +150	°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	μA
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

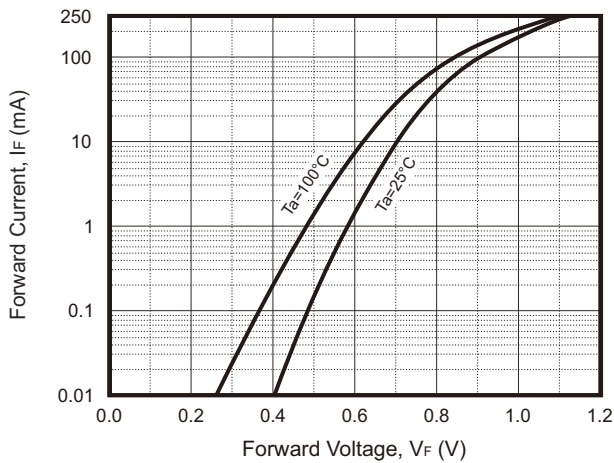


Fig.2 - Reverse Characteristics

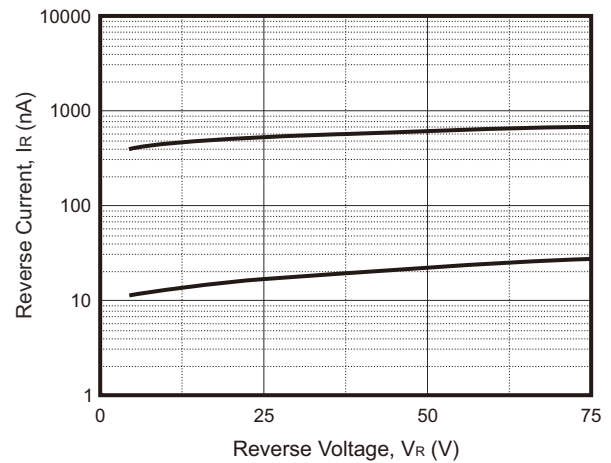


Fig.3 - Capacitance Characteristics

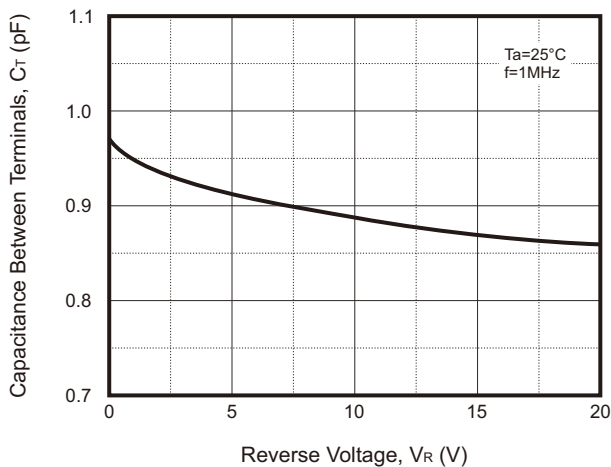
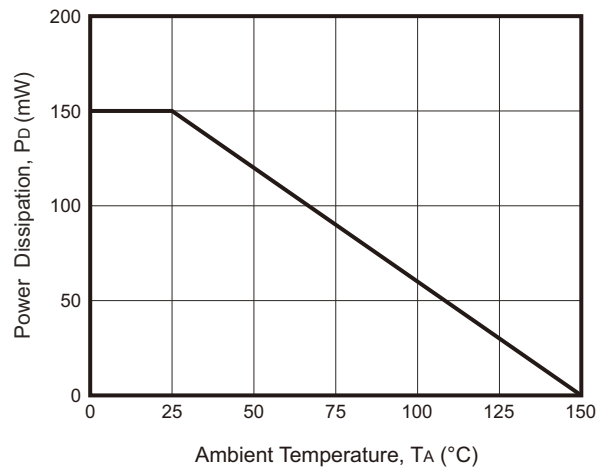
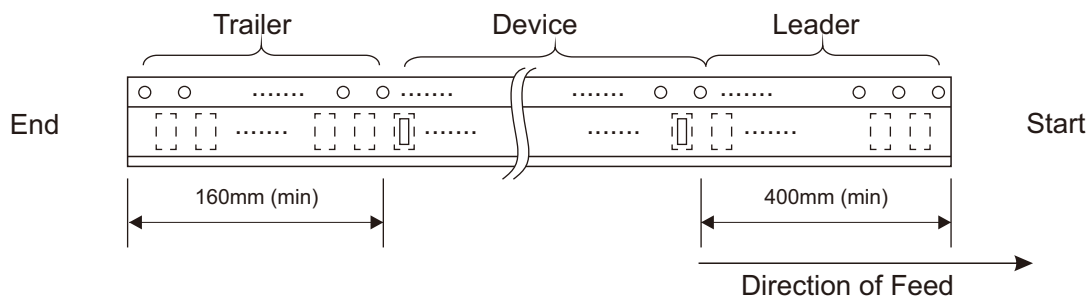
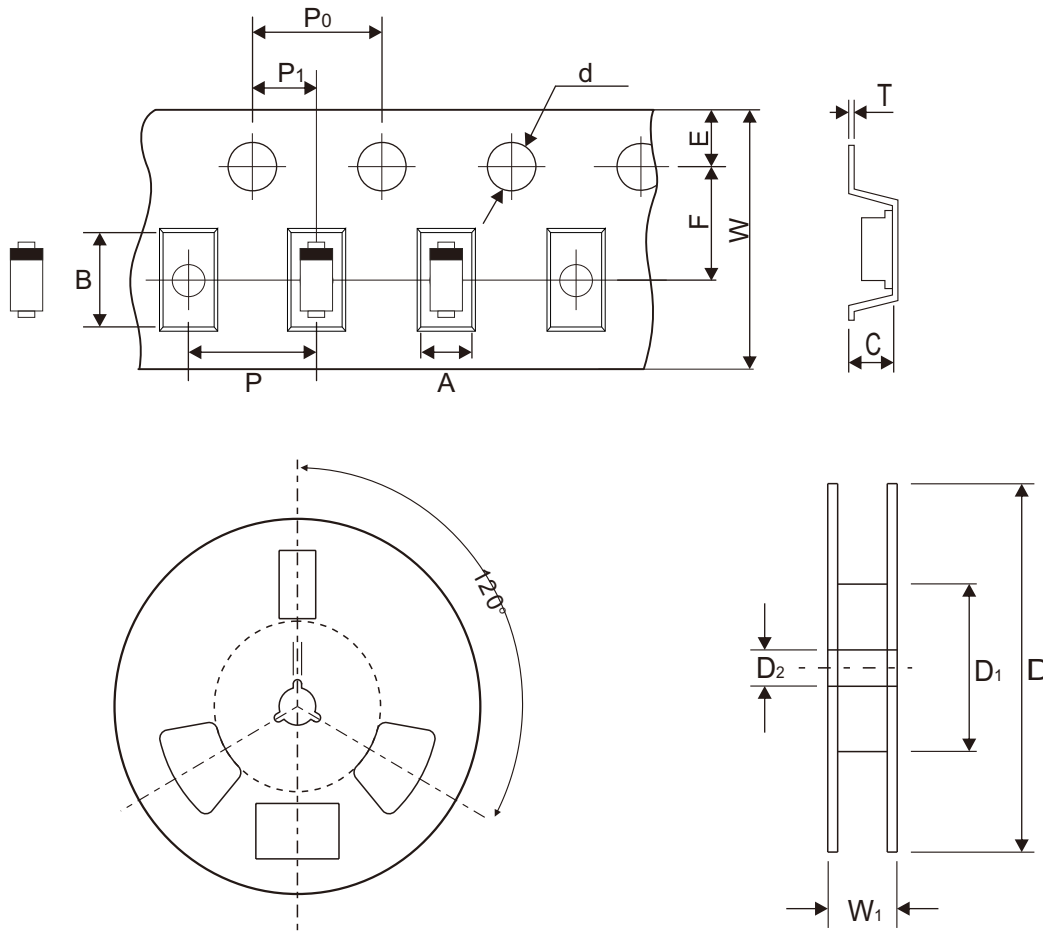


Fig.4 - Power Derating Curve



Reel Taping Specification



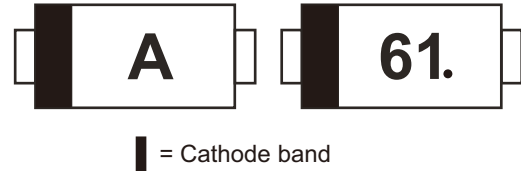
SOD-523	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	See Note 1			1.50 ± 0.10	178 ± 2.00	50.00 Min.	13.00 ± 0.50
	(inch)	See Note 1			0.059 ± 0.004	7.008 ± 0.079	1.968 Min.	0.512 ± 0.020

SOD-523	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(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.

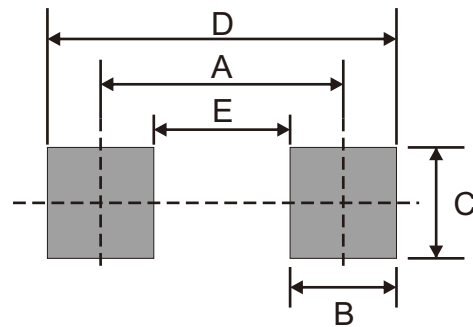
Marking Code

Part Number	Marking Code	
	BAS516H-HF	A



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	3,000	7