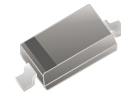


BAS316-HF

RoHS Device
Halogen Free



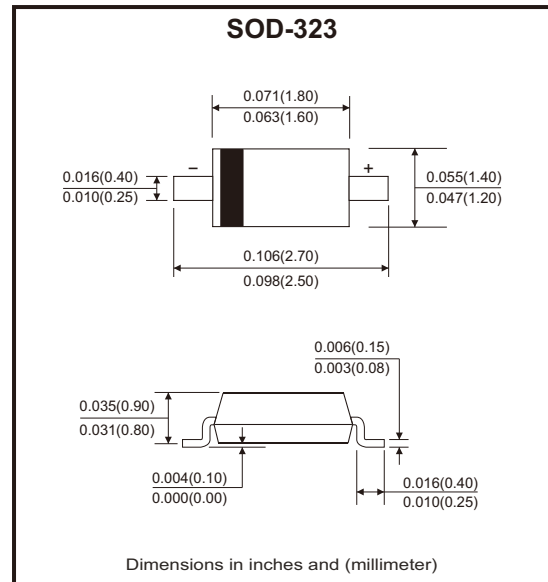
Features

- Very small plastic package.
- High switching speed.

Mechanical data

- Case: SOD-323, molded plastic.
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Polarity: Cathode line denotes the cathode end.

Circuit Diagram



Maximum Rating (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	100	V
Non-repetitive peak forward surge current @ t=8.3ms	I_{FSM}	2	A
Average forward current	I_{FAV}	250	mA
Power dissipation	P_{tot}	200	mW
Thermal resistance	$R_{\theta JA}$	625	K/W
Maximum junction temperature	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Max	Unit
Maximum forward voltage	V_{F1}	$I_F = 1mA$		0.715	V
	V_{F2}	$I_F = 10mA$		0.855	
	V_{F3}	$I_F = 50mA$		1.00	
	V_{F4}	$I_F = 150mA$		1.25	
Maximum reverse current	I_R	$V_R = 20V$		25	nA
		$V_R = 75V$		1.0	μA
Maximum breakdown voltage	V_{BR}	$I_R = 100\mu A$	100		V
Maximum diode capacitance	C_D	$V_R = V_F = 0V, f = 1MHz$		4	pF
Maximum reverse recovery time	t_{rr}	$I_F = 10mA, V_R = 6V, I_{rr} = 1mA, R_L = 100\Omega$		4	nS

Typical Rating and Characteristic Curves (BAS316-HF)

Fig.1 - Forward Characteristics

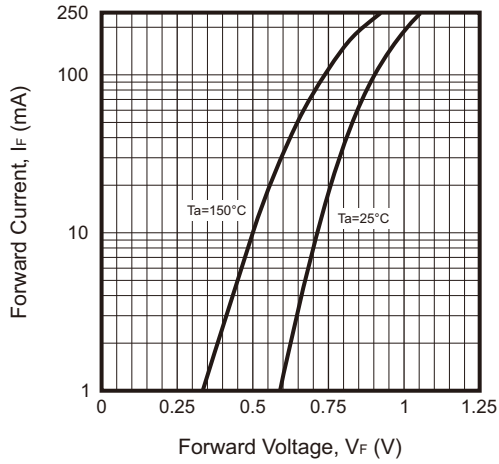


Fig.2 - Reverse Characteristics

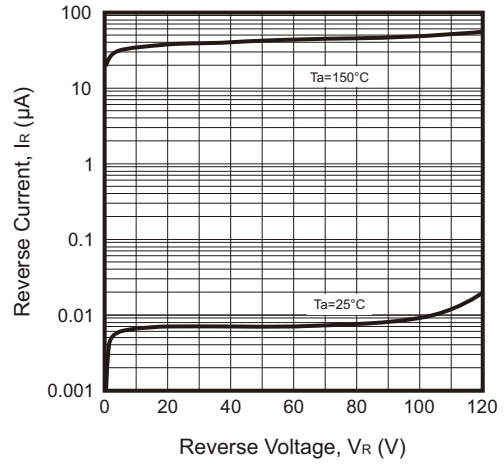


Fig.3 - Capacitance Characteristics

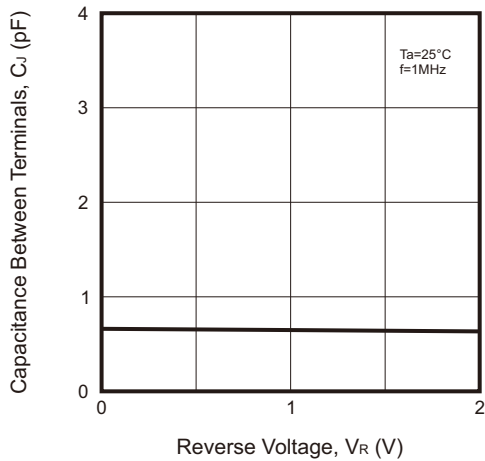
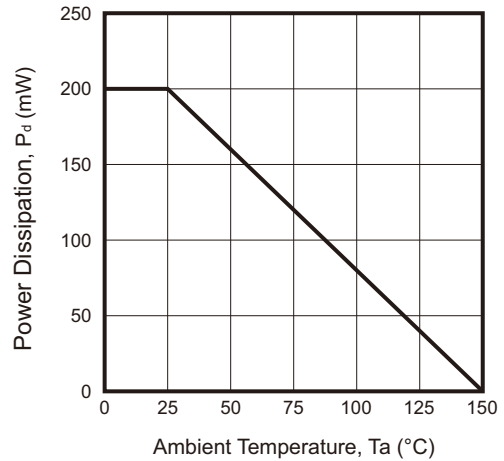
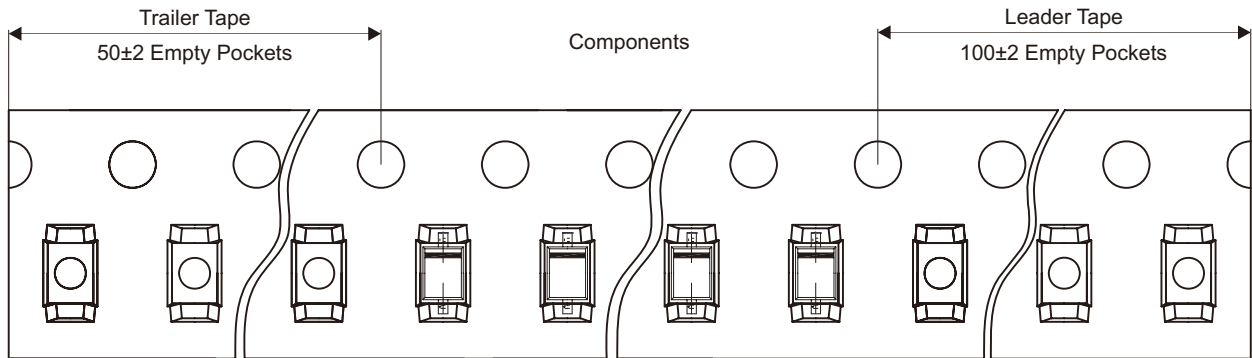
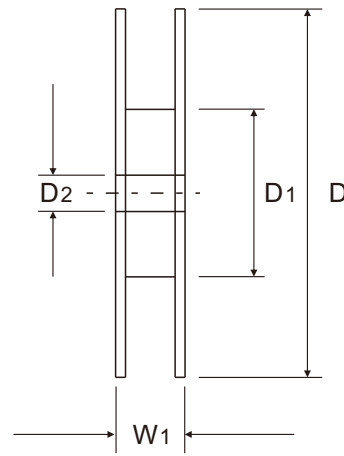
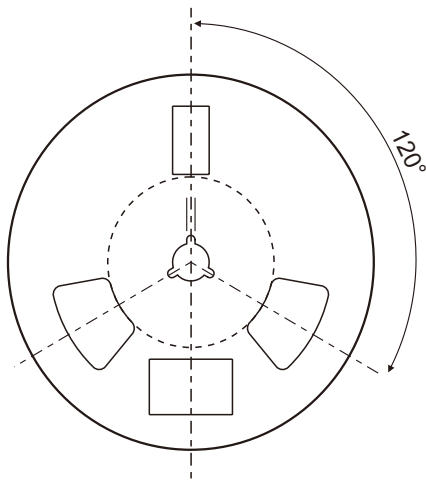
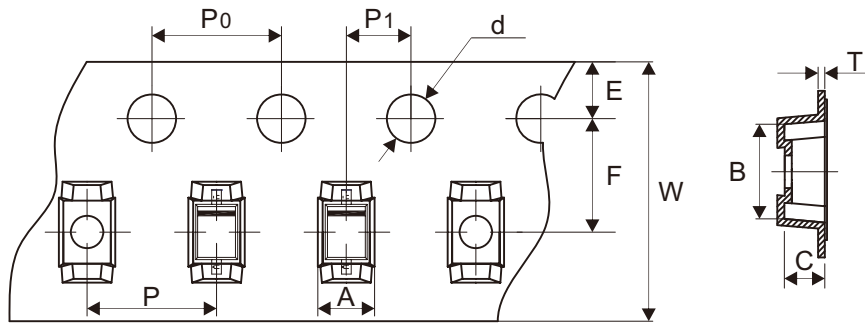


Fig.4 - Power Derating Curve



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.50 ± 0.05	2.90 ± 0.10	1.25 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.059 ± 0.002	0.114 ± 0.004	0.049 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-323	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 ± 0.05	0.254 ± 0.02	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.010 ± 0.001	0.315 + 0.012 - 0.004	0.484 ± 0.039