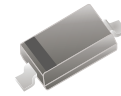


## BAS416-HF

RoHS Device  
Halogen Free

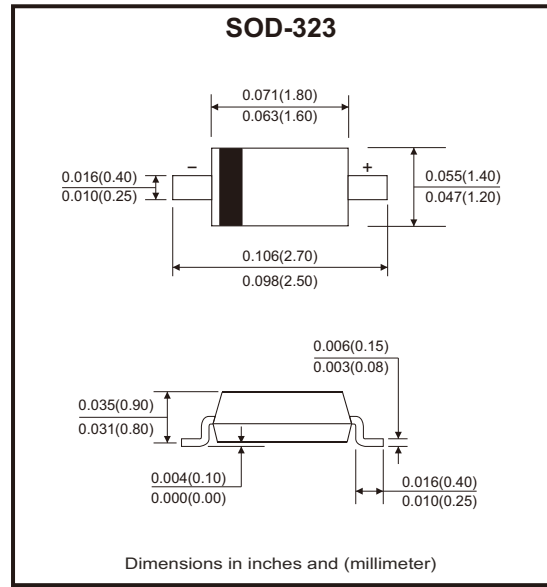


### Features

- Fast switching speed.
- Low leakage current.

### 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	$V_{RRM}$	85	V
Reverse voltage	$V_R$	100	V
Non-repetitive peak forward surge current @ t=8.3ms	$I_{FSM}$	2	A
Average forward current	$I_{FAV}$	200	mA
Power dissipation	$P_{tot}$	250	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	500	°C/W
Maximum junction temperature	$T_J$	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
Breakdown voltage	$V_R$	$I_R = 100\mu A$	100		V
Forward voltage	$V_F$	$I_F = 1mA$		0.9	V
		$I_F = 10mA$		1.0	
		$I_F = 50mA$		1.1	
		$I_F = 150mA$		1.25	
Reverse leakage current	$I_R$	$V_R = 75V$		5	nA
Capacitance	C	$V_R = 0V, f = 1MHz$		4	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$		3	$\mu S$

## Typical Rating and Characteristic Curves (BAS416-HF)

Fig.1 - Typical Instantaneous Forward Characteristics

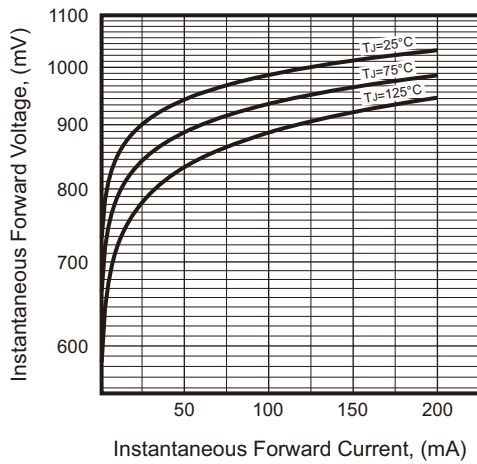


Fig.2 - Typical Reverse Characteristics

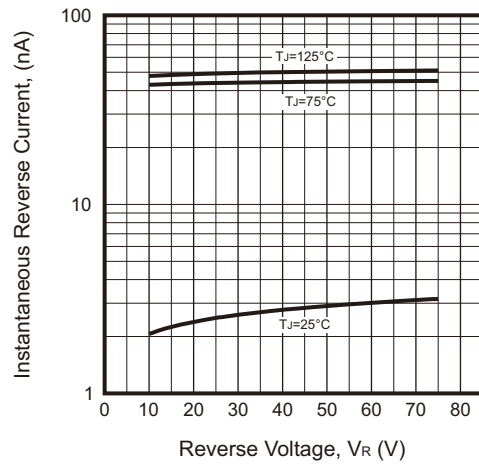
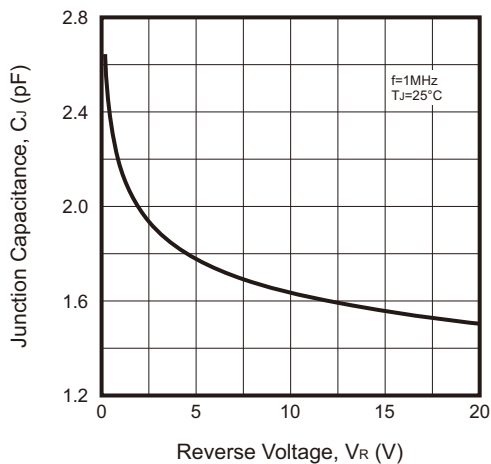
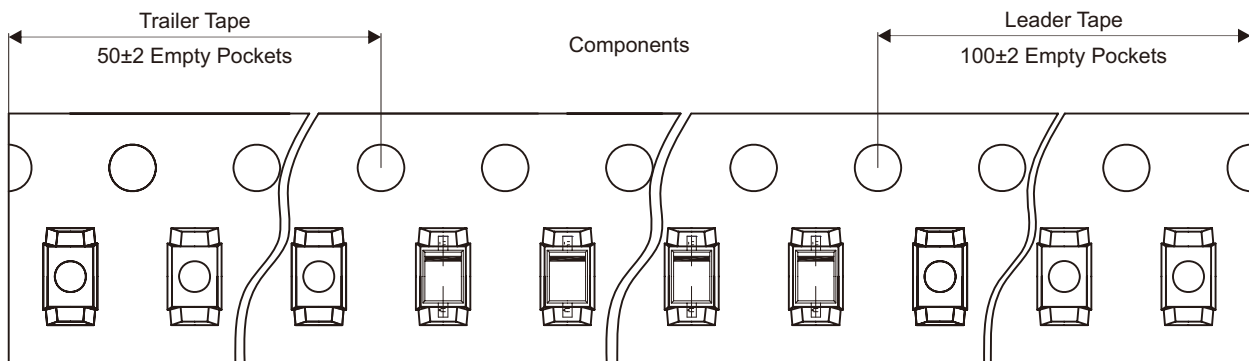
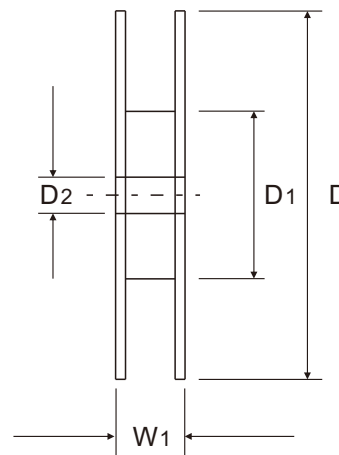
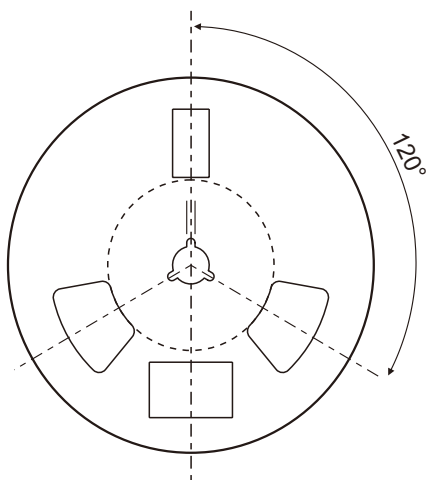
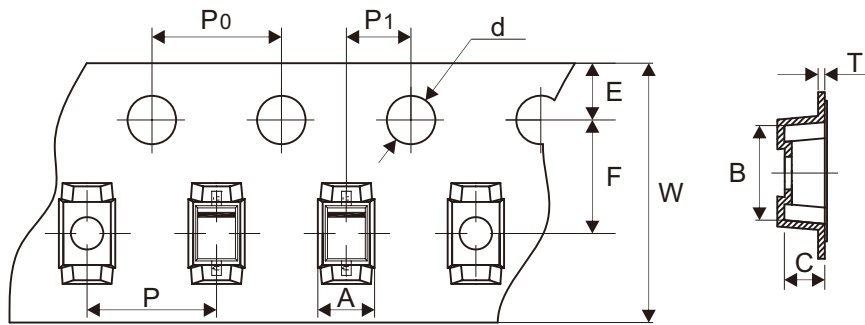


Fig.3 - Typical Junction Capacitance



## 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