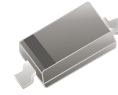


BAS21J-HF

RoHS Device
Halogen Free

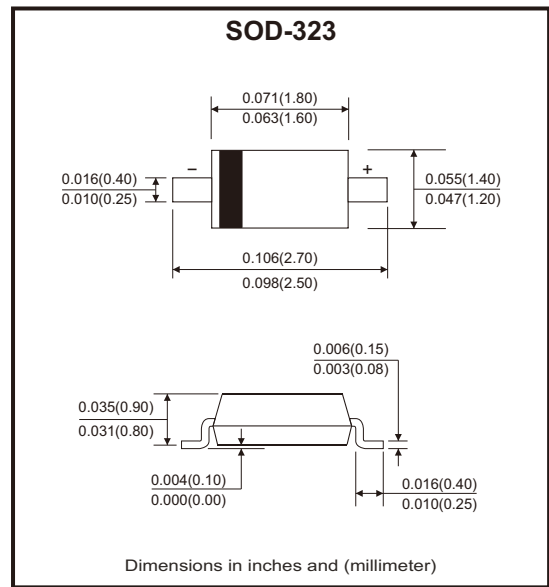


Features

- Small surface mounting type.
- High speed switching.

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}	300	V
Non-repetitive peak forward surge current @ t=8.3ms	I_{FSM}	2	A
Average forward current	I_{FAV}	225	mA
Power dissipation	P_D	200	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	625	°C/W
Junction temperature	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

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

Parameter	Symbol	Conditions	Min	Max	Unit
Maximum forward voltage	V_F	$I_F = 100\text{mA}$		1	V
Maximum reverse current	I_R	$V_R = 240\text{V}$		100	nA
		$V_R = 240\text{V}, T_J = 150^\circ\text{C}$		100	μA
Maximum breakdown voltage	V_R	$I_R = 100\mu\text{A}$		300	V
Maximum diode capacitance	C_D	$V_R = 0\text{V}, f = 1\text{MHz}$		5	pF
Maximum reverse recovery time	t_{rr}	$I_F = 30\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$		50	nS

Typical Rating and Characteristic Curves (BAS21J-HF)

Fig.1 - V_F — I_F

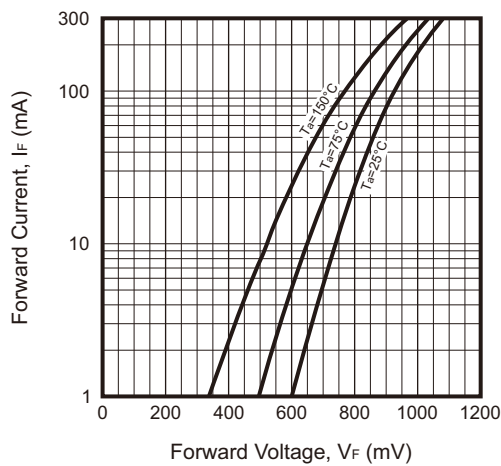


Fig.2 - I_R — V_R

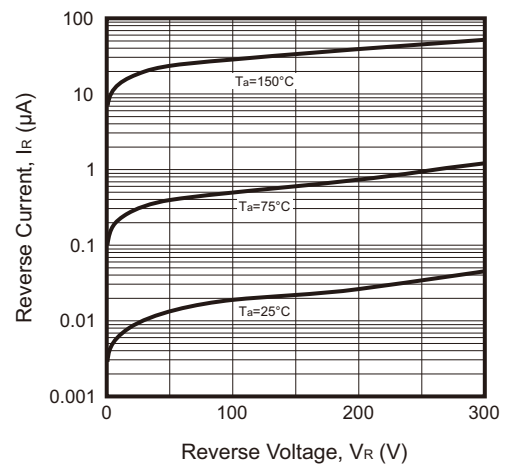
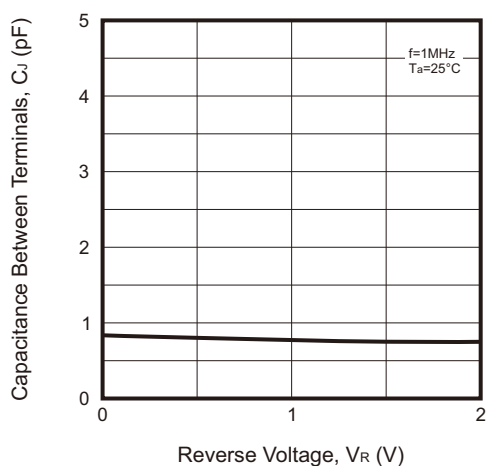
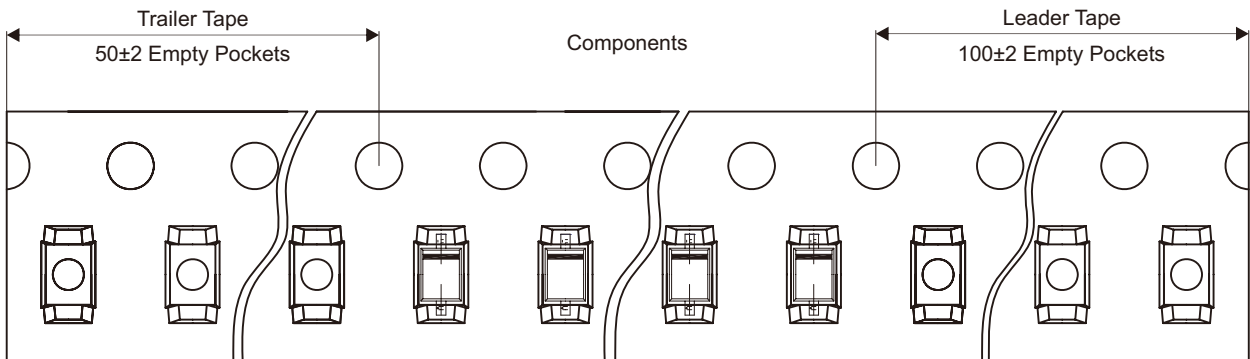
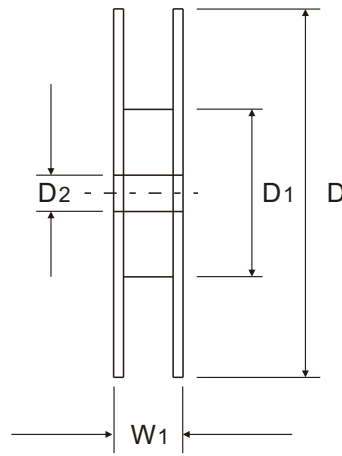
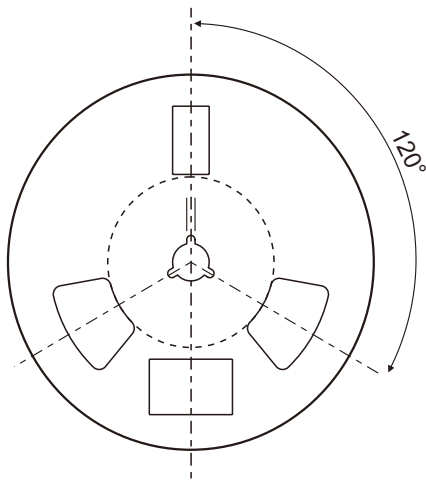
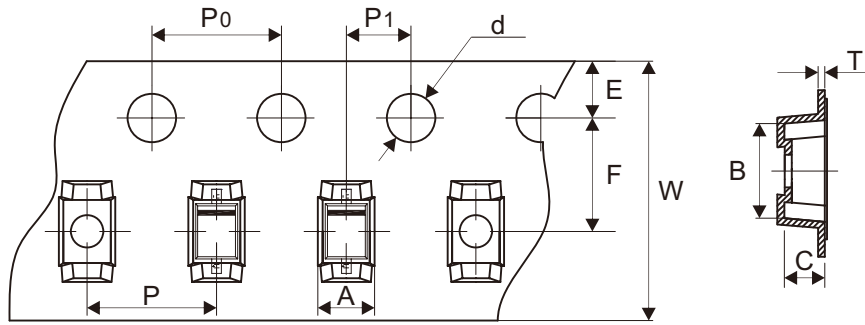


Fig.3 - C_J — V_R



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