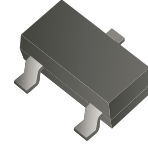


BAS70-xx-HF Series

RoHS Device
Halogen Free



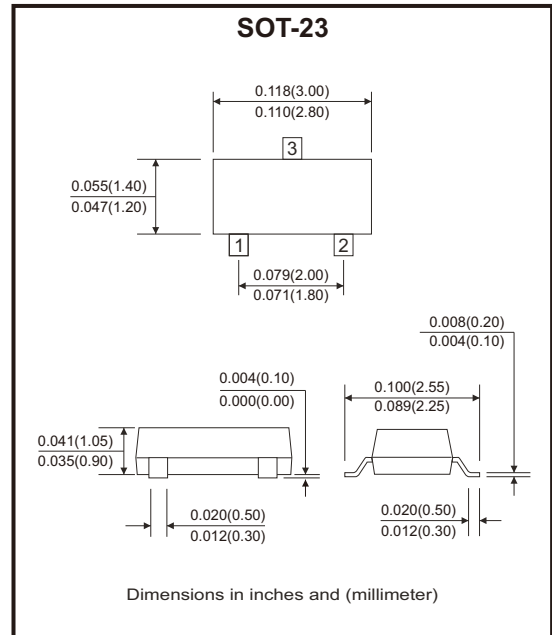
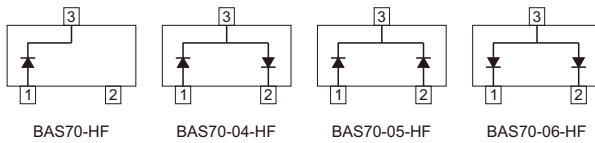
Features

- Molding compound meets UL 94V-0 flammability rating.
- Low forward voltage.

Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Continuous reverse voltage	V_R	70	V
Forward continuous current	I_F	70	mA
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	0.1	A
Total power dissipation @ $T_A = 25^\circ\text{C}$	P_D	200	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Operation junction temperature range	T_J	-55 to +125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Value	Unit
Maximum instantaneous forward voltage	V _F	I _{FM} = 1mA	0.41	V
		I _{FM} = 15mA	1	
Continuous reverse voltage	V _R	I _R = 10μA	70	V
Maximum DC reverse current	I _R	V _R = 50V	0.2	μA
Maximum junction capacitance	C _J	f = 1MHz, V _R = 1V	2	pF
Maximum reverse recovery time	t _{rr}	I _F = I _R = 10mA, I _(REC) = 1mA	5	ns

Typical Rating and Characteristic Curves (BAS70-xx-HF Series)

Fig.1 - Power Derating Curve

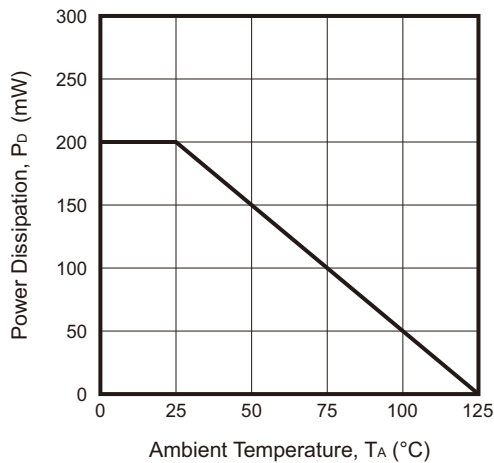


Fig.2 - Forward Characteristics

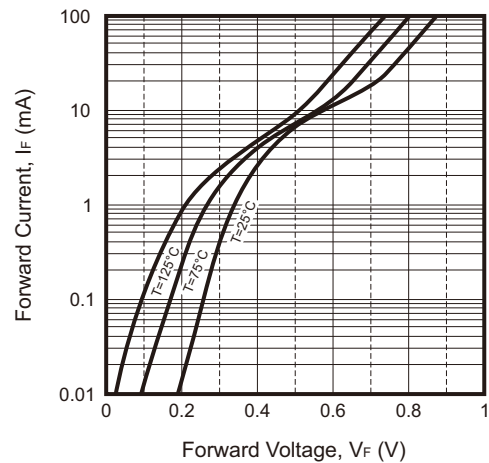


Fig.3 - Reverse Characteristics

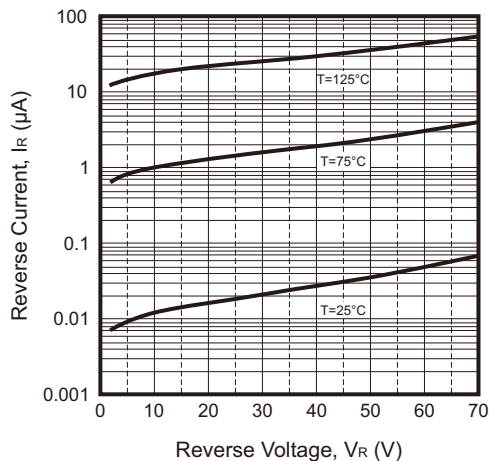
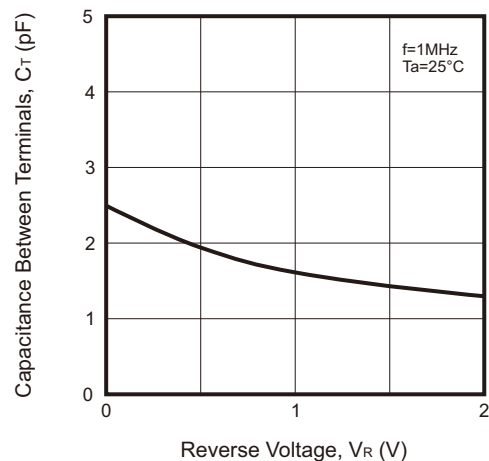
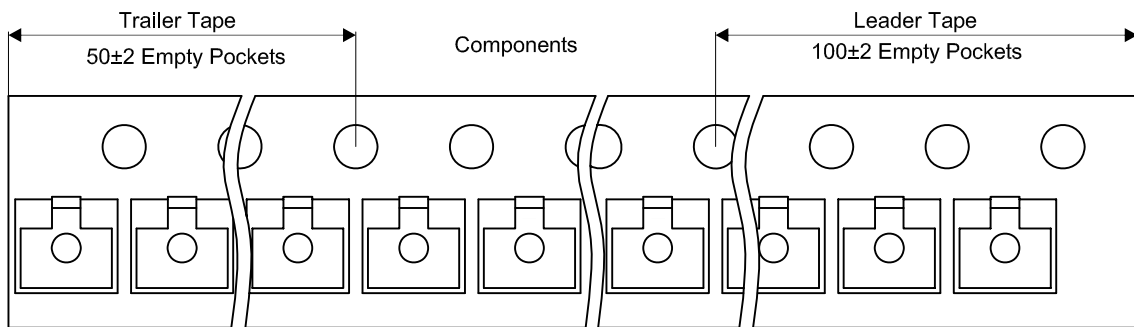
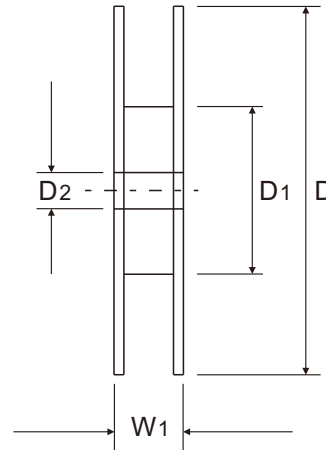
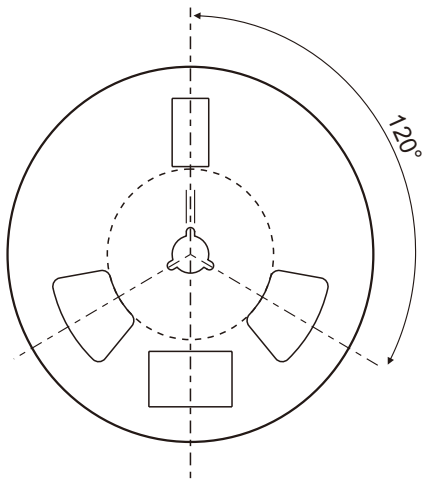
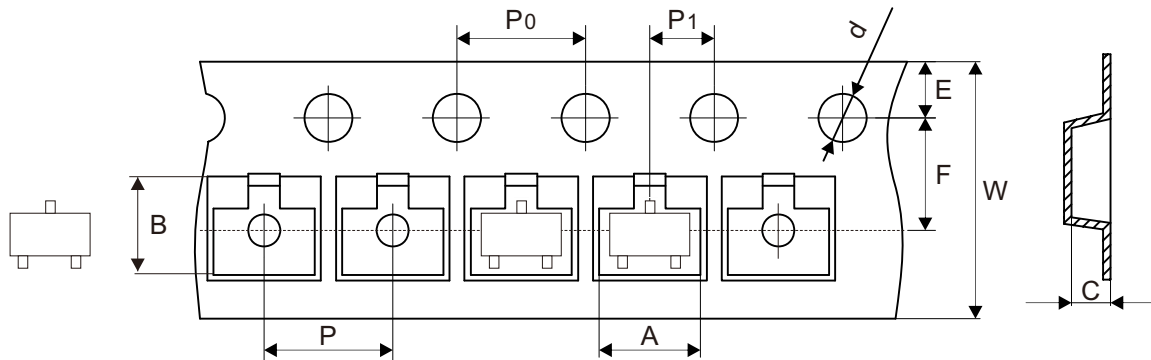


Fig.4 - Capacitance Characteristics



Reel Taping Specification



SOT-23	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 1.00	54.60 ± 1.00	13.30 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.039	2.150 ± 0.039	0.524 ± 0.039

SOT-23	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 - 0.10	11.10 ± 0.20
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.437 ± 0.008