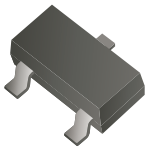
BAS70-xx-P2-HF Series

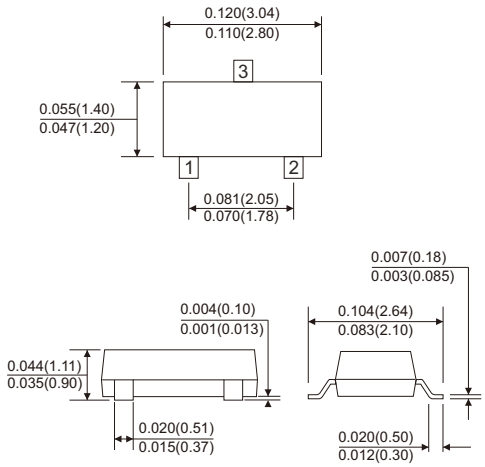
RoHS Device
Halogen Free



Features

- High conductance.
- Low current leakage.
- Small outline surface mount package.

SOT-23

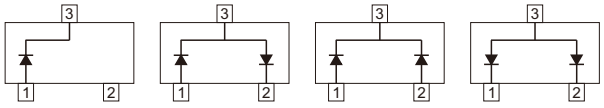


Dimensions in inches and (millimeter)

Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.

Circuit Diagram



BAS70-P2-HF BAS70-04-P2-HF BAS70-05-P2-HF BAS70-06-P2-HF

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

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	70	V
Reverse voltage	V_R	70	V
Forward continuous current	I_O	70	mA
Power dissipation	P_D	200	mW
Non-repetitive peak forward surge current @8.3ms single half sine-wave	I_{FSM}	2	A
Thermal resistance junction to ambient	$R_{\theta JA}$	430	°C/W
Junction temperature	T_J	125	°C
Storage temperature range	T_{STG}	-55 to +150	°C

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

Parameter	Symbol	Conditions	Mim	Typ	Max	Unit
Forward voltage	V_F	I_F = 1mA			0.41	V
		I_F = 15mA			1	
Reverse breakdown voltage	V_{BR}	I_R = 10μA	70			V
Reverse voltage leakage current	I_R	V_R = 50V			100	nA
junction capacitance	C_J	V_R = 0V, f = 1MHz		2		pF
Reverse recovery time	t_{rr}	I_F = I_R = 10mA, $I_{(REC)}$ = 1mA			5	ns

Typical Rating and Characteristic Curves (BAS70-xx-P2-HF Series)

Fig.1 - Typical Instantaneous Forward Characteristics

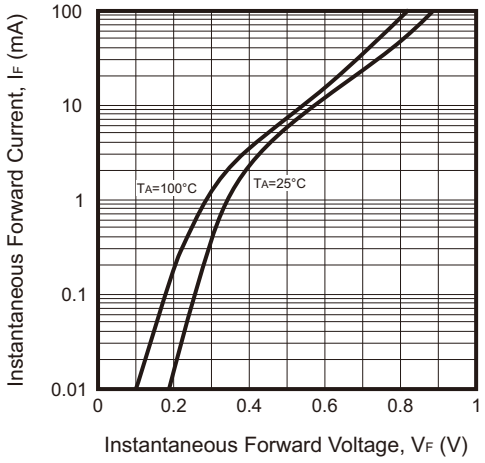


Fig.2 - Typical Reverse Leakage Characteristics

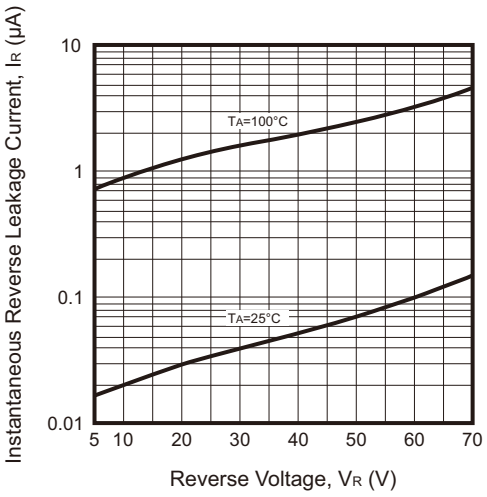
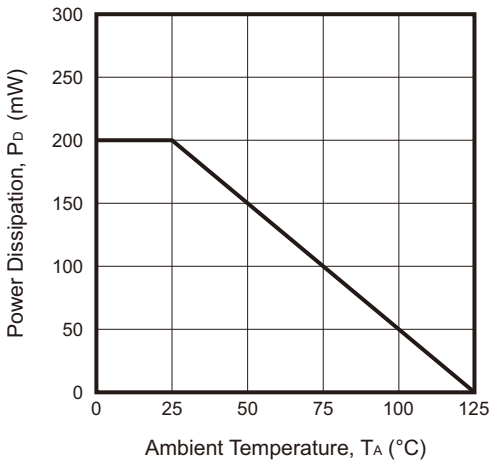
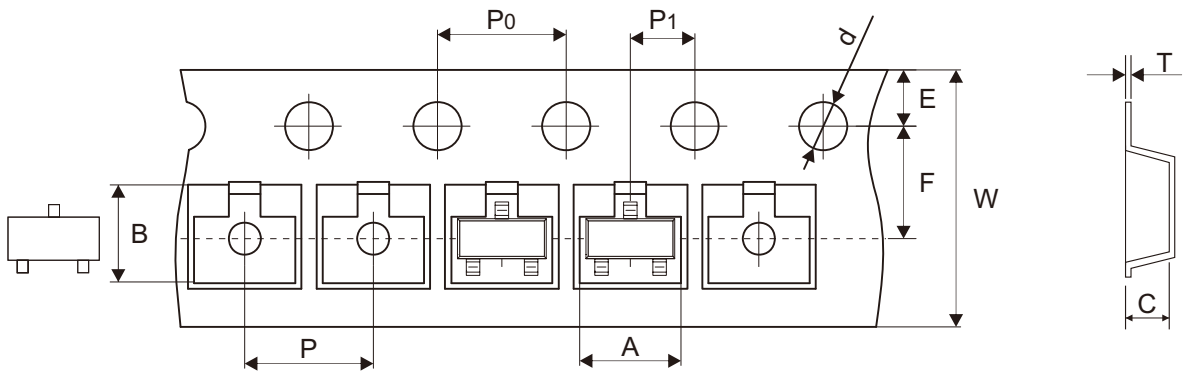
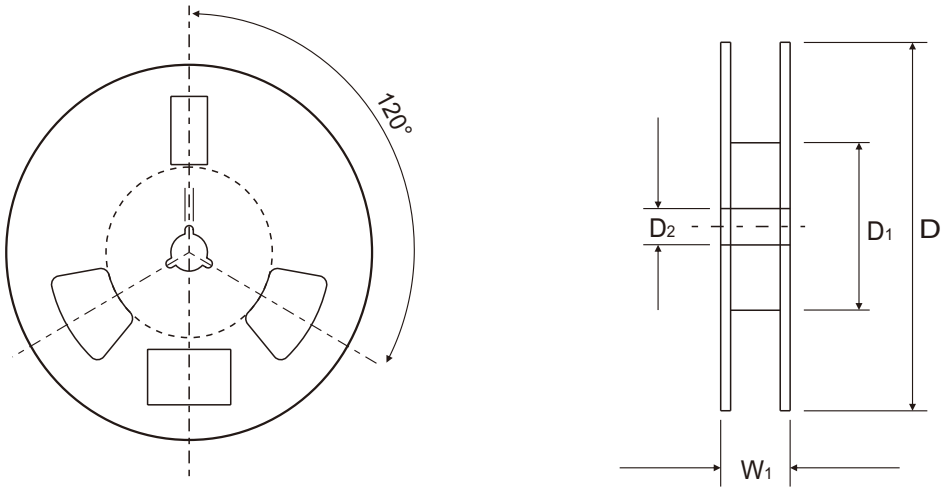


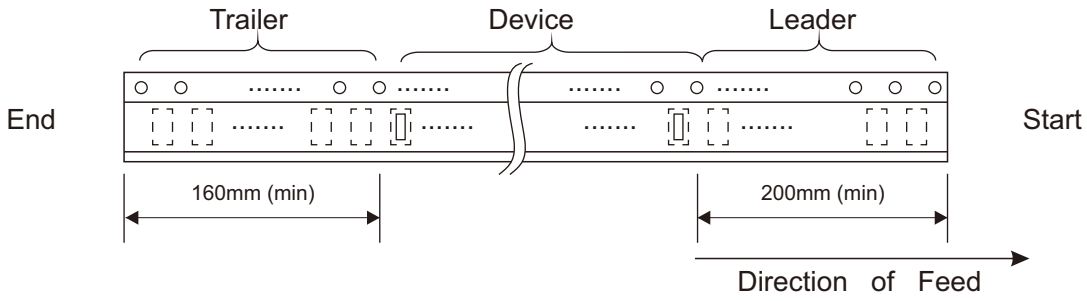
Fig.3 - Power Derating Curve



Reel Taping Specification





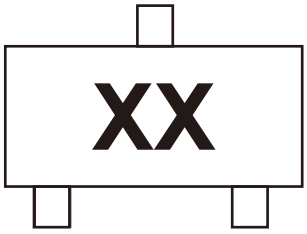


	SYMBOL	A	B	C	d	D	D1	D2
SOT-23	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 + 0.08 − 0.10	1.50 + 0.10 − 0.00	178.00 ± 2.00	50.00 ± 0.50	13.00 ± 0.25
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 + 0.003 − 0.004	0.059 + 0.004 − 0.000	7.008 ± 0.079	1.969 ± 0.020	0.512 ± 0.010

	SYMBOL	E	F	P	P0	P1	T	W	W1
SOT-23	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	8.00 + 0.30 − 0.10	9.50 ± 0.50
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 + 0.012 − 0.004	0.374 ± 0.020

Marking Code

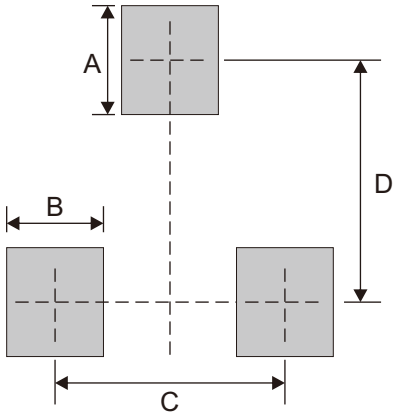
Part Number	Marking Code
BAS70-P2-HF	73
BAS70-04-P2-HF	74
BAS70-05-P2-HF	75
BAS70-06-P2-HF	76



xx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	1.90	0.075
D	2.00	0.079



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7