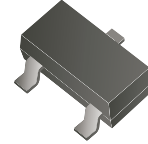


BAS40-xx-HF Series

RoHS Device
Halogen Free



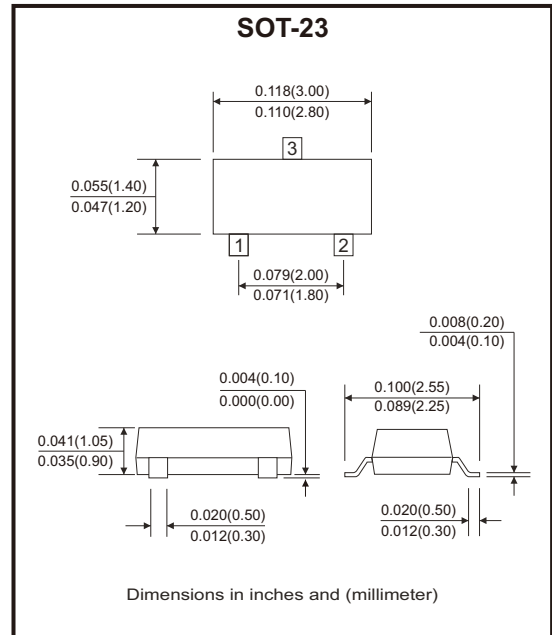
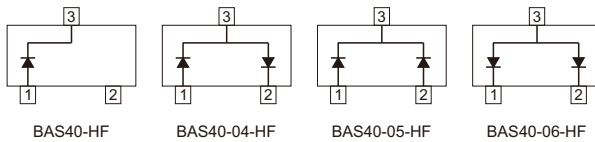
Features

- Epoxy meets UL-94 V-0 flammability rating.
- Low forward voltage.
- Surface mount device.

Mechanical data

- Case: SOT-23, molded plastic.
- Mounting position: Any.

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive peak reverse voltage	V_{RRM}	40	V
Working peak reverse voltage	V_{RWM}	40	
DC blocking voltage	V_R	40	
Forward continuous current	I_{FM}	200	mA
Power dissipation	P_D	200	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	500	°C/W
Junction temperature range	T_J	125	°C

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

Parameter	Symbol	Conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 10\mu A$	40		V
Reverse voltage leakage current	I_R	$V_R = 30V$		200	nA
Forward voltage	V_F	$I_F = 1mA$		380	mV
		$I_F = 40mA$		1000	
Diode capacitance	C_J	$V_R = 0V, f = 1MHz$		5	pF
Reverse recovery time	t_{rr}	$I_{rr} = 0.5mA, I_R = I_F = 5mA, R_L = 100\Omega$		5	ns

Rating and Characteristic Curves (BAS40-xx-HF Series)

Fig.1 - Typical Instantaneous Forward Characteristics

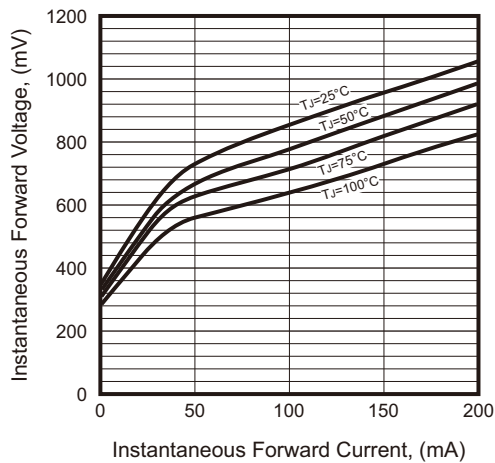
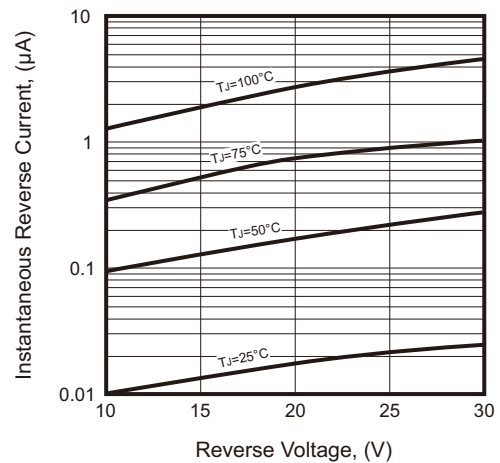
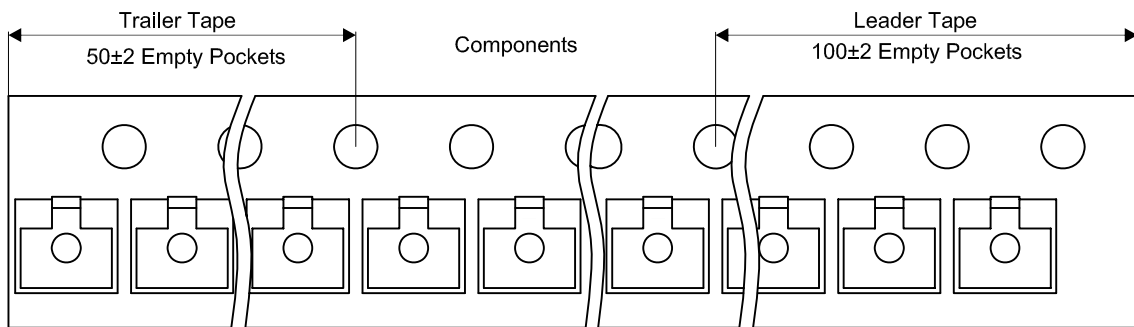
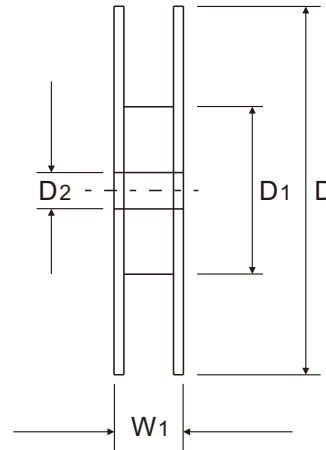
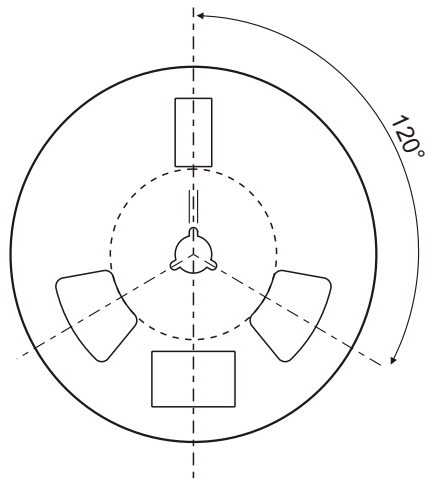
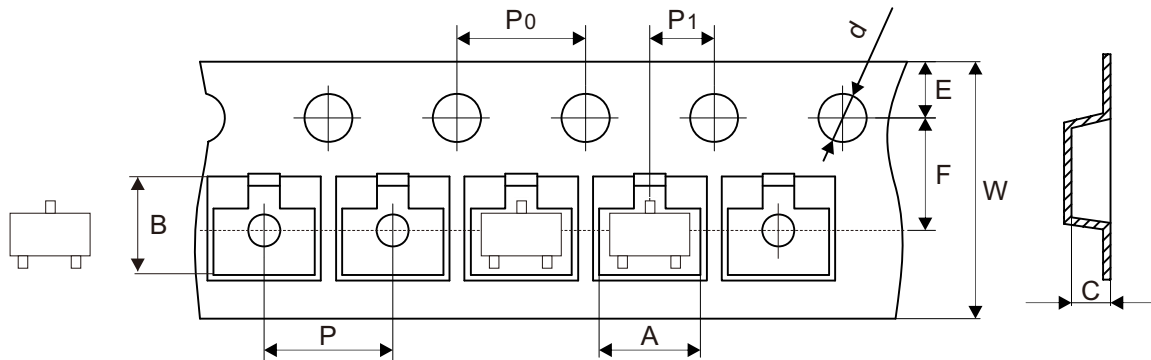


Fig.2 - Typical Reverse Characteristics



Reel Taping Specification

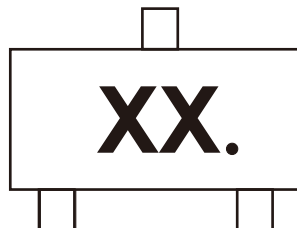


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 1.00	54.60 ± 1.00	13.30 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.039	2.150 ± 0.039	0.524 ± 0.039

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(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

Marking Code

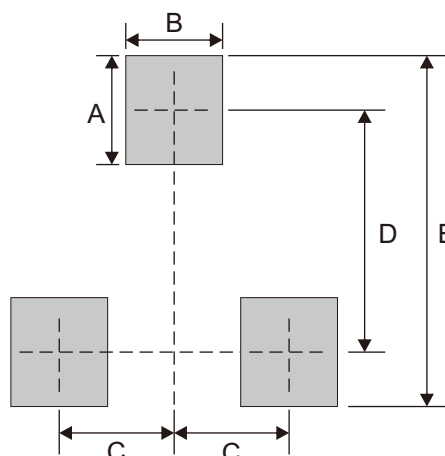
Part Number	Marking Code
BAS40-HF	43.
BAS40-04-HF	44.
BAS40-05-HF	45.
BAS40-06-HF	46.



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	0.95	0.037
D	2.00	0.079
E	2.90	0.114



Standard Packaging

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