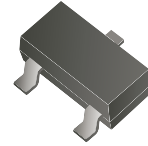


ABAV70-HF

RoHS Device

Halogen Free



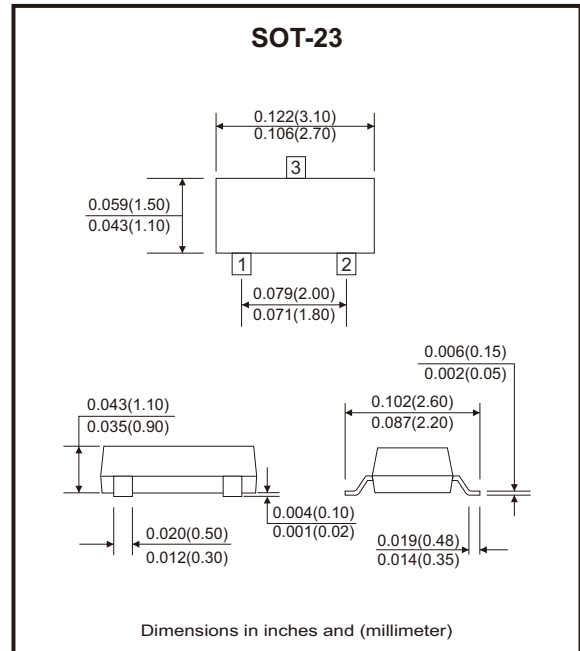
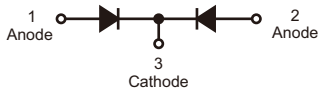
Features

- Fast switching speed.
- High conductance.
- Common cathode.
- For general purpose switching applications.
- Surface mount package ideally suited for automatic insertion.
- AEC-Q101 Qualified.

Mechanical data

- Case: SOT-23, molded plastic.

Circuit Diagram



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

Parameter	Symbol	Value	Unit	
Non- repetitive peak reverse voltage	V_{RM}	100	V	
Peak repetitive reverse voltage	V_{RRM}	75	V	
Working peak reverse voltage	V_{RWM}			
DC reverse voltage	V_R			
RMS reverse voltage	$V_{R(RMS)}$	53	V	
Forward continuous current (Max.)	I_{FM}	300	mA	
Average rectified output current	I_o	150	mA	
Repetitive peak forward current	I_{FRM}	450	mA	
Non-repetitive forward surge current	I_{FSM}	@ t=1µs	2.0	A
		@ t=1s	1.0	
Power dissipation	P_D	350	mW	
Thermal resistance, junction to ambient air	$R_{\theta JA}$	357	°C/W	
Junction temperature	T_J	150	°C	
Storage temperature range	T_{STG}	-65 to +150	°C	

Company reserves the right to improve product design , functions and reliability without notice.

REV:A

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

Parameter	Symbol	Conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 2.5\mu A$	75		V
Reverse voltage leakage current	I_R	$V_R = 70V$ $V_R = 20V$		2.5 25	μA nA
Forward voltage	V_F	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		715 855 1000 1250	mV
Diode capacitance	C_D	$V_R = 0V, f = 1MHz$		2.0	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10mA, I_R = 1mA,$ $V_R = 5V, R_L = 100\Omega$		4	nS

Rating and Characteristic Curves (ABAV70-HF)

Fig.1 - Forward Characteristics

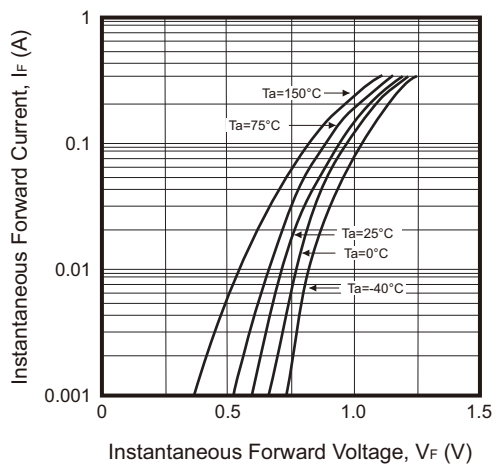


Fig.2 - Typical Reverse Characteristics

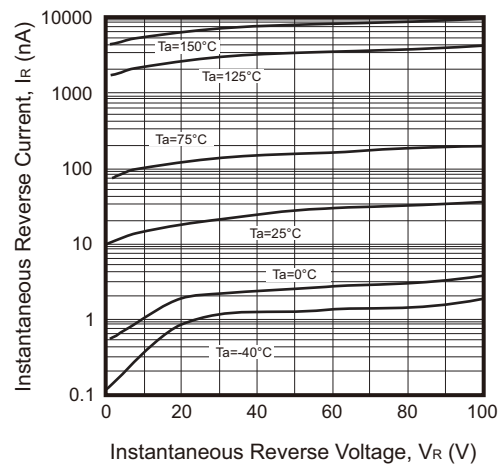


Fig.3 - Typical Capacitance vs. Reverse Voltage

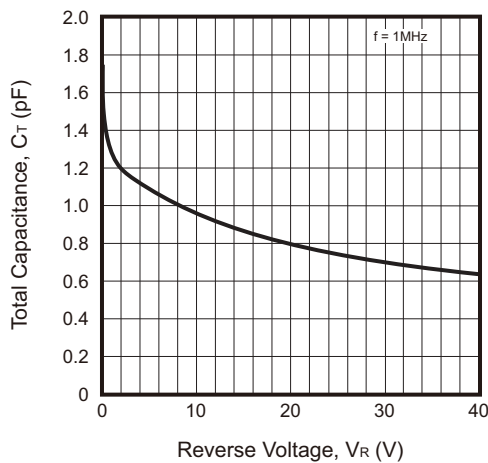
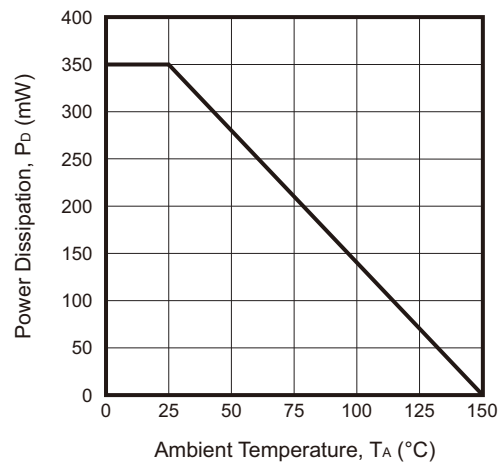


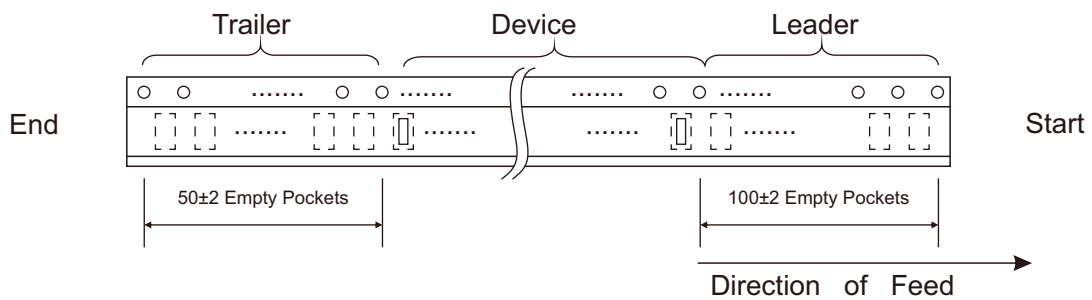
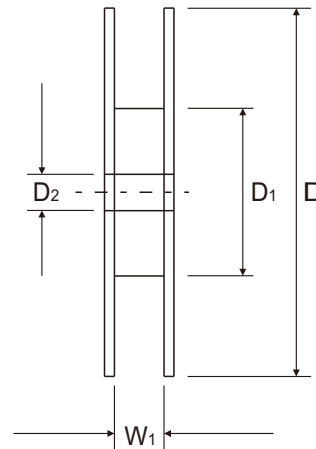
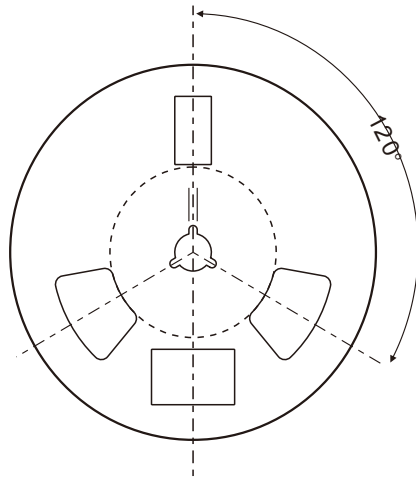
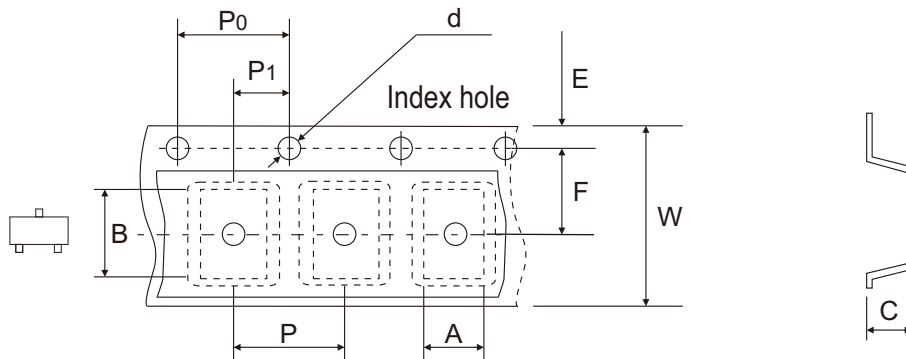
Fig.4 - Power Derating Curve



Company reserves the right to improve product design, functions and reliability without notice.

REV:A

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	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

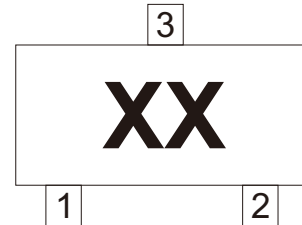
SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.374 ± 0.039

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

Marking Code

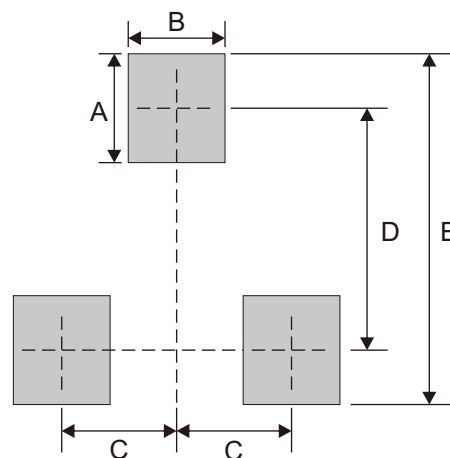
Part Number	Marking Code
ABAV70-HF	A4



xx = Product type marking code

Suggested 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



Note: 1. The pad layout is for reference purposes only.

Standard Packaging

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