

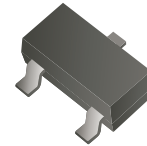
ABAV99-HF

Reverse Voltage: 75 Volts

Forward Current: 215 mA

RoHS Device

Halogen Free



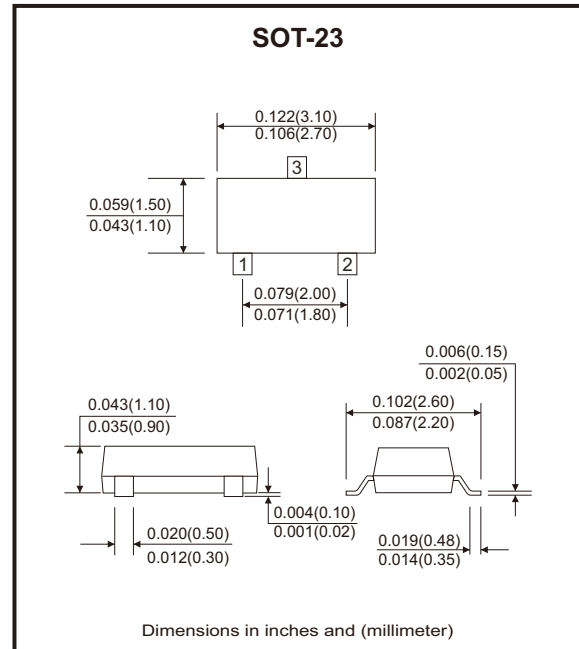
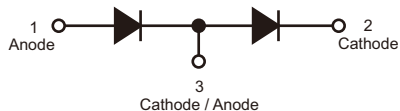
Features

- Fast switching speed max: 4ns.
- High conductance.
- Connected in series.
- Surface mount package ideally suited for automatic insertion.
- MSL 1.
- 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
Reverse voltage	V _R	75	V
Forward current	I _F	215	mA
Peak forward surge current	I _{FM}	500	mA
Peak repetitive reverse voltage	V _{RRM}	75	V
Repetitive peak reverse voltage	I _{FRM}	450	mA
Peak forward surge current @ t=1μs @ t=1ms @ t=1s	I _{FSM}	2.0 1.0 0.5	A
Power dissipation	P _D	350	mW
Thermal resistance junction to ambient air	R _{θJA}	556	°C/W
Thermal resistance junction to lead	R _{θJL}	338	°C/W
Thermal resistance junction to case	R _{θJC}	250	°C/W
Junction temperature range	T _J	-65 to +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	$V_{(BR)}$	$I_R = 2.5\mu A$	75		V
Reverse voltage leakage current	I_R	$V_R = 20V$ $V_R = 75V$ $V_R = 25V, T_j = 150^\circ C$ $V_R = 75V, T_j = 150^\circ C$		25 2.5 30 50	nA μA μA μA
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}	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$		4.0	nS

Rating and Characteristic Curves (ABAV99-HF)

Fig.1 - Forward Characteristics

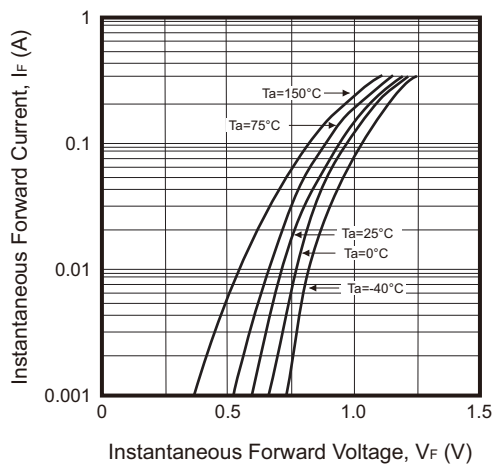


Fig.2 - Typical Reverse Characteristics

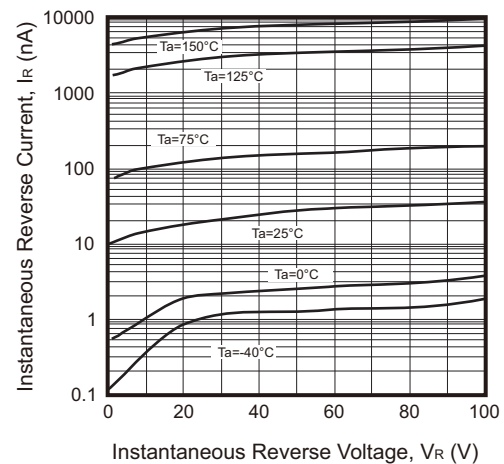
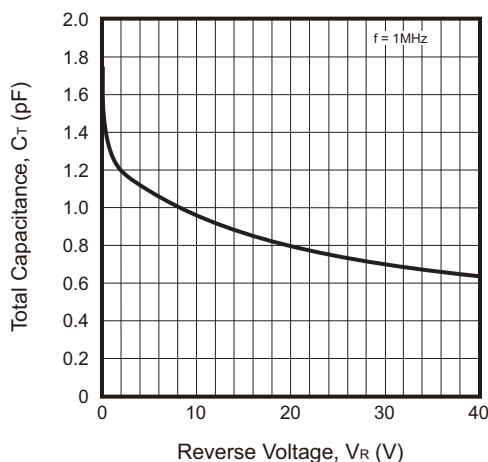


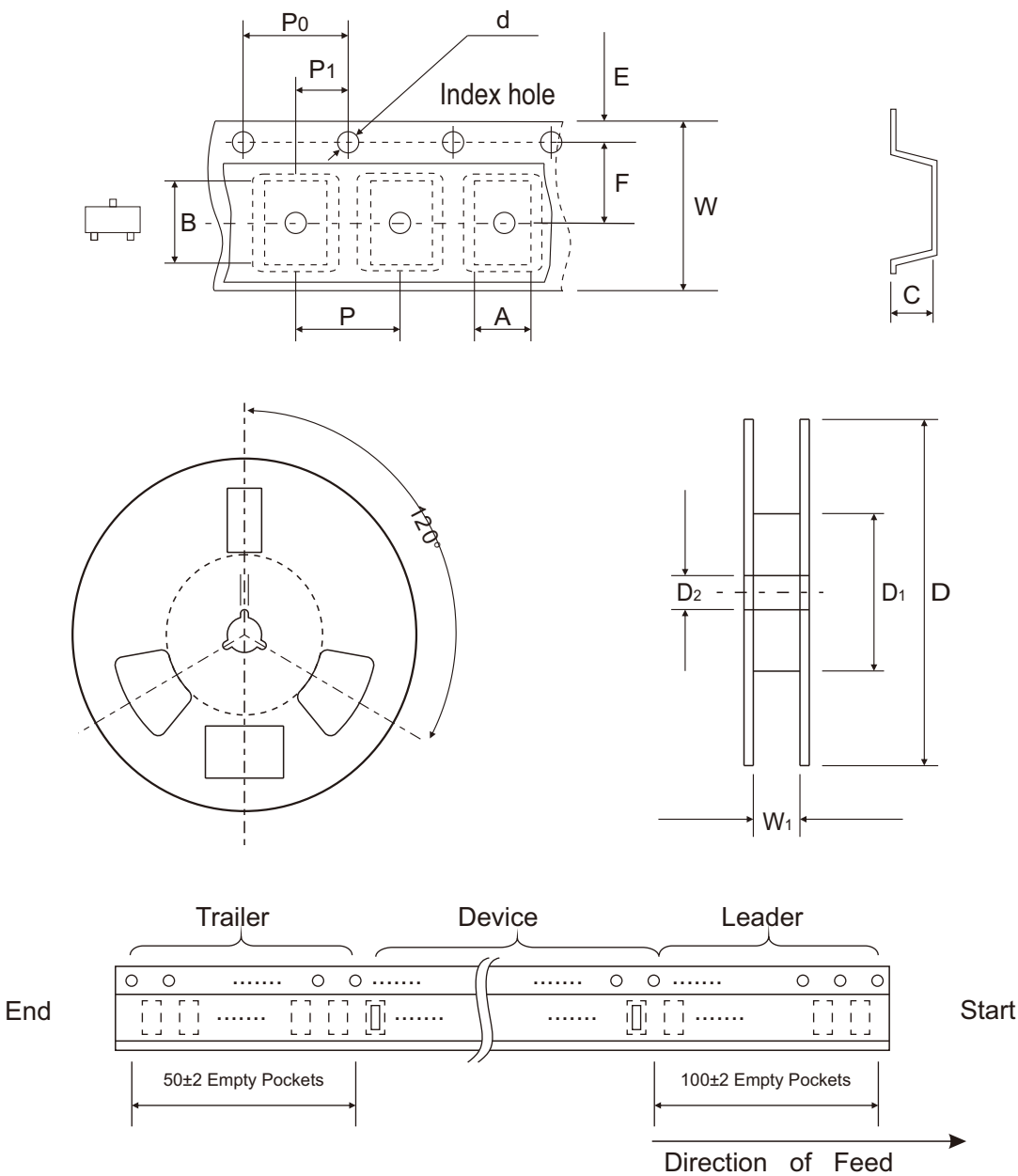
Fig.3 - Typical Capacitance vs. Reverse Voltage



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REV:A

Reel Taping Specification

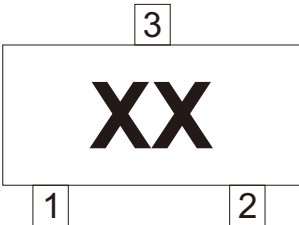


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

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

Marking Code

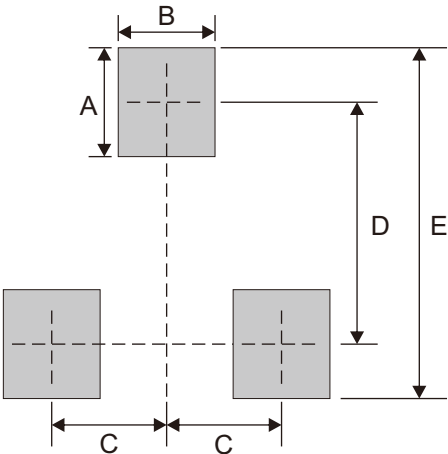
Part Number	Marking Code
ABAV99-HF	A7



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

Mouser Electronics

Authorized Distributor

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