



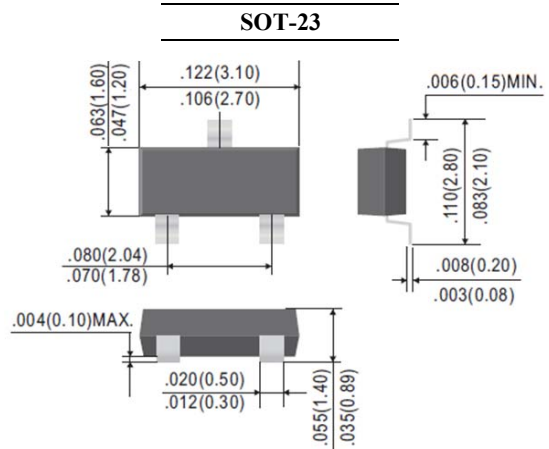
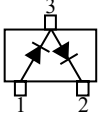
ABAV99H

FAST SWITCHING DIODES

REVERSE VOLTAGE: 100 VOLTS
POWER DISSIPATION: 350 mWATTS

FEATURES

- AEC-Q101 Qualified
- Fast Switching Speed
- Suffix "H" indicates Halogen-free parts, ex. ABAV99H



Dimensions in inch and (millimeter)

Maximum Ratings@ $T_A = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	100	V
Continuous Forward Current	Single Diode Load	215	mA
	Double Diode Load	125	
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive Peak Forward Surge	at $t=1\text{ s}$	0.5	A
	at $t=1\text{ ms}$	1.0	
	at $t=1\text{ }\mu\text{s}$	4.5	
Power Dissipation	P_D	350	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics@ $T_A = 25\text{ }^\circ\text{C}$

Parameter	Conditions	Symbol	Max	Unit
Forward Voltage	$I_F=1\text{ mA}$	V_F	715	mV
	$I_F=10\text{ mA}$		855	
	$I_F=50\text{ mA}$		1000	
	$I_F=150\text{ mA}$		1250	
Reverse current	$V_R=20\text{ V}, T_J=25\text{ }^\circ\text{C}$	I_R	0.03	μA
	$V_R=75\text{ V}, T_J=25\text{ }^\circ\text{C}$		1	
	$V_R=25\text{ V}, T_J=150\text{ }^\circ\text{C}$		30	
	$V_R=75\text{ V}, T_J=150\text{ }^\circ\text{C}$		50	
Total Capacitance	$V_R=0, f=1\text{ MHz}$	C_T	1.5	pF
Reverse Recovery Time	$I_F=10\text{ mA}, V_R=6\text{ V}$ $I_{rr}=0.1 \times I_R, R_L=100\text{ }\Omega$	t_{rr}	4	ns



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FAST SWITCHING DIODES

RATINGS AND CHARACTERISTIC CURVES

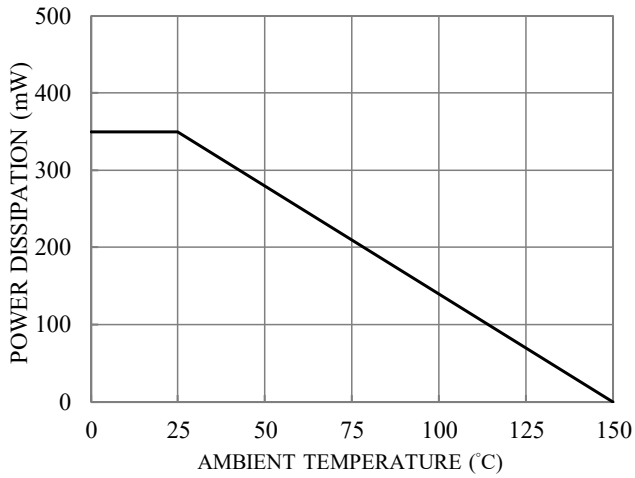


Fig.1-POWER DERATING CURVE

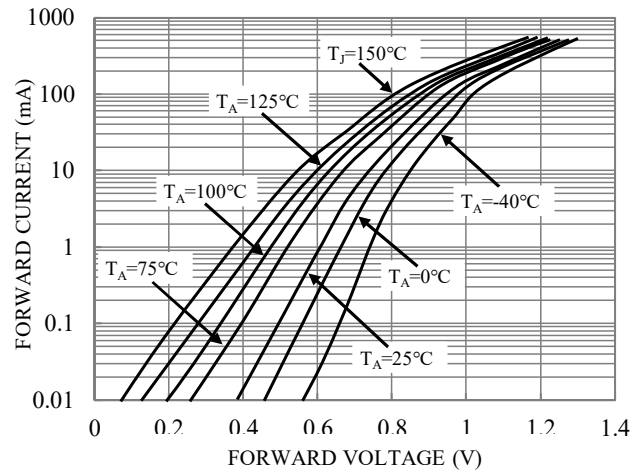


Fig.2-TYPICAL FORWARD CHARACTERISTICS

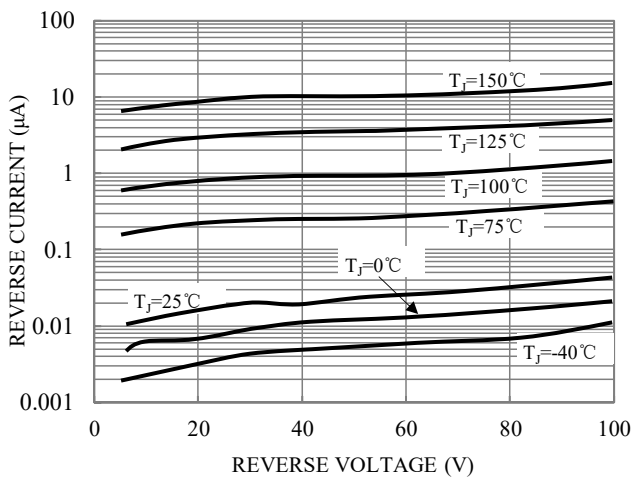


Fig.3-TYPICAL REVERSE CHARACTERISTICS

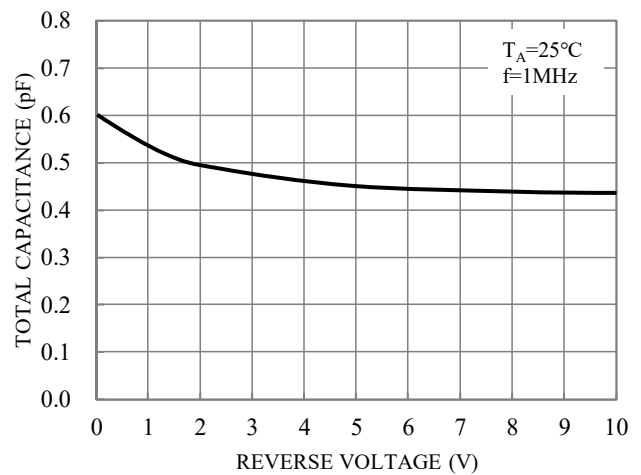


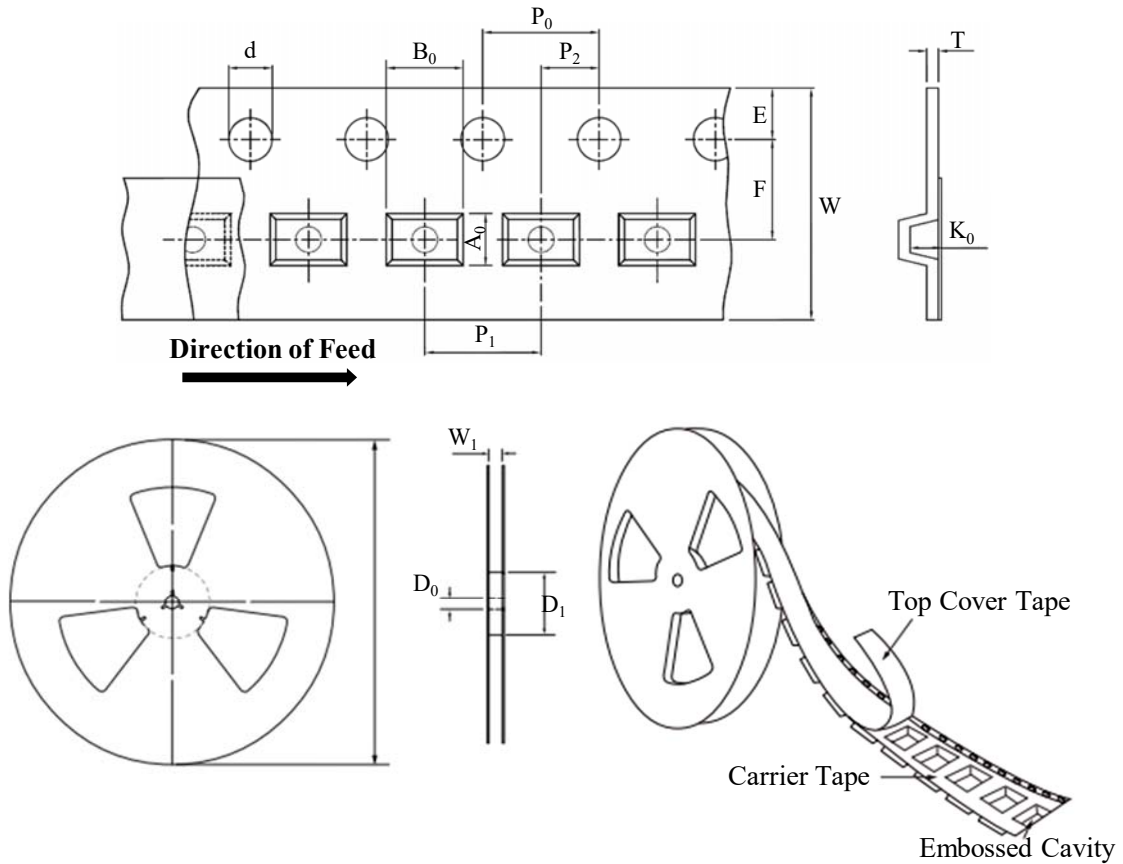
Fig.4-TOTAL CAPACITANCE VS REVERSE VOLTAGE



ABAV99H

FAST SWITCHING DIODES

TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A ₀	3.30 ± 0.10
Carrier length	B ₀	3.00 ± 0.10
Carrier depth	K ₀	1.70 ± 0.10
Sprocket hole	d	1.60 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D ₀	13.00 ± 0.50
Reel inner diameter	D ₁	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P ₀	4.00 ± 0.10
Punch hole pitch	P ₁	4.00 ± 0.10
Embossment center	P ₂	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W ₁	MAX. 14.50

ORDER INFORMATION

Package	Reel Size	Quantity
SOT-23	7"	3,000

MARKING CODE

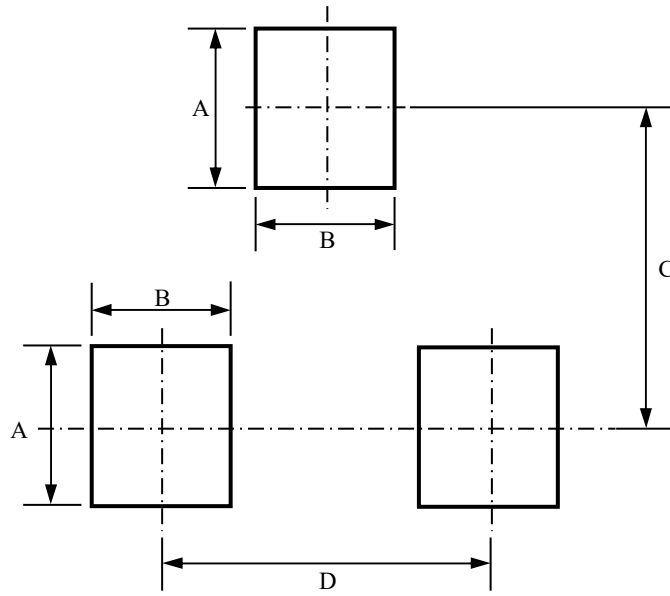
Part Number	Marking Code
ABAV99H	A7



ABAV99H

FAST SWITCHING DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOT-23	1.00	0.80	2.00	1.90