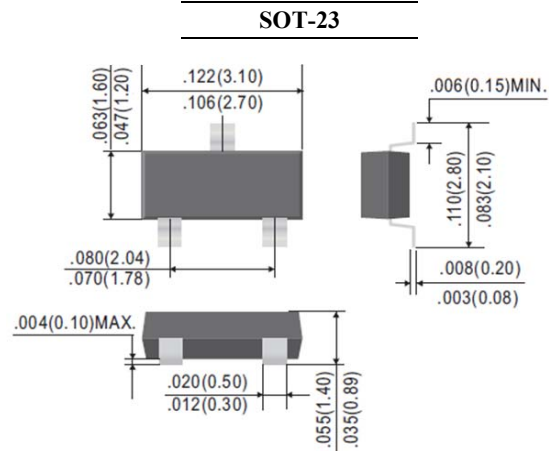
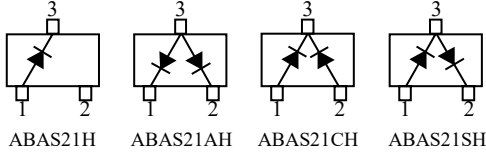




ABAS21 SERIES SWITCHING DIODES

FEATURES

- High voltage switching diode
- AEC-Q101 qualified
- Suffix "H" indicates Halogen-free parts, ex. ABAS21H



Dimensions in inch and (millimeter)

Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	250	V
Reverse Voltage	V_R	200	V
Average Forward Current	$I_{F(AV)}$	400	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	$t=1\mu\text{s}$	9.0
		$t=100\mu\text{s}$	3.0
Total Power Dissipation	P_{tot}	350	mW
Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

Note:

1. Device mounted on FR-4 PCB with minimum recommended pad layout.

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$I_R=100\mu\text{A}$	$V_{(BR)R}$	250	-	-	V
Forward Voltage	$I_F=100\text{mA}$	V_F	-	-	1.00	V
	$I_F=200\text{mA}$		-	-	1.25	
Reverse Current	$V_R=200\text{V}, T_J=25^\circ\text{C}$	I_R	-	-	100	nA
	$V_R=200\text{V}, T_J=150^\circ\text{C}$		-	-	100	μA
Diode Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	C_d	-	-	5	pF
Reverse Recovery Time	$I_F=I_R=30\text{mA}, I_T=0.1 \times I_R, R_L=100\Omega$	t_{rr}	-	-	50	ns



ABAS21 SERIES SWITCHING DIODES

RATINGS AND CHARACTERISTIC CURVES

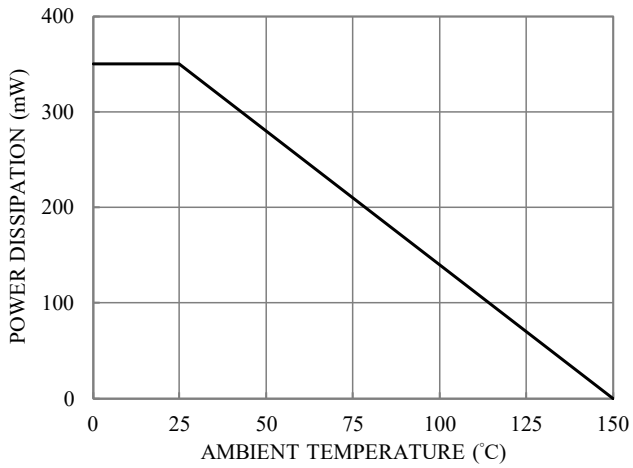


Fig.1-POWER DERATING CURVE

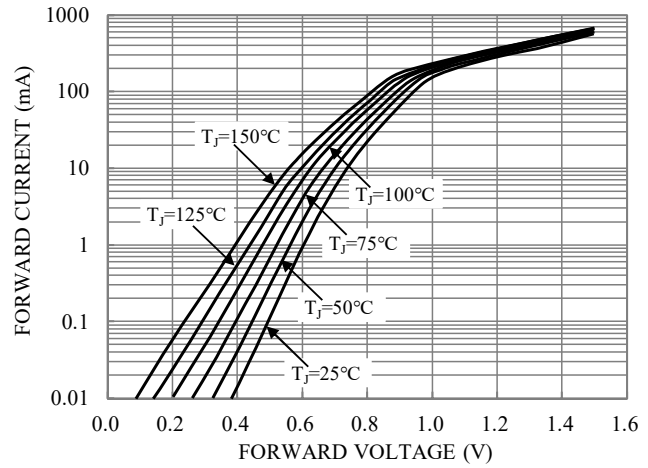


Fig.2-TYPICAL FORWARD CHARACTERISTICS

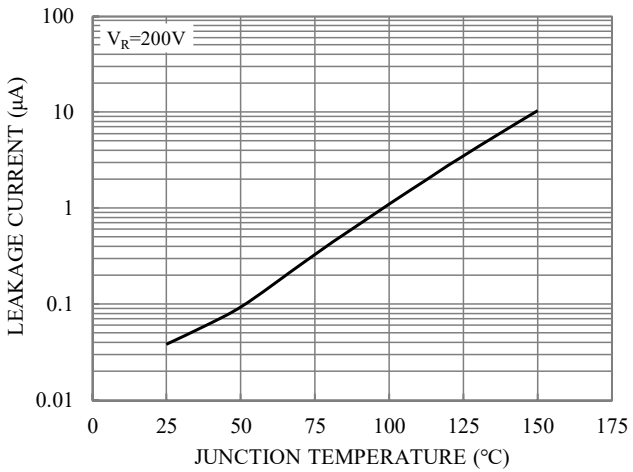


Fig.3-LEAKAGE CURRENT vs. JUNCTION TEMPERATURE

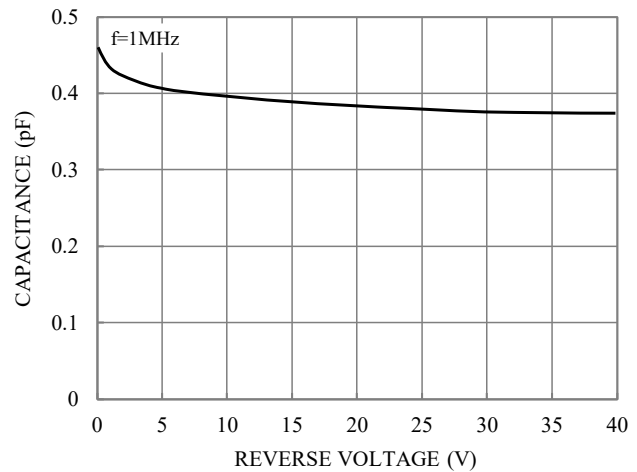
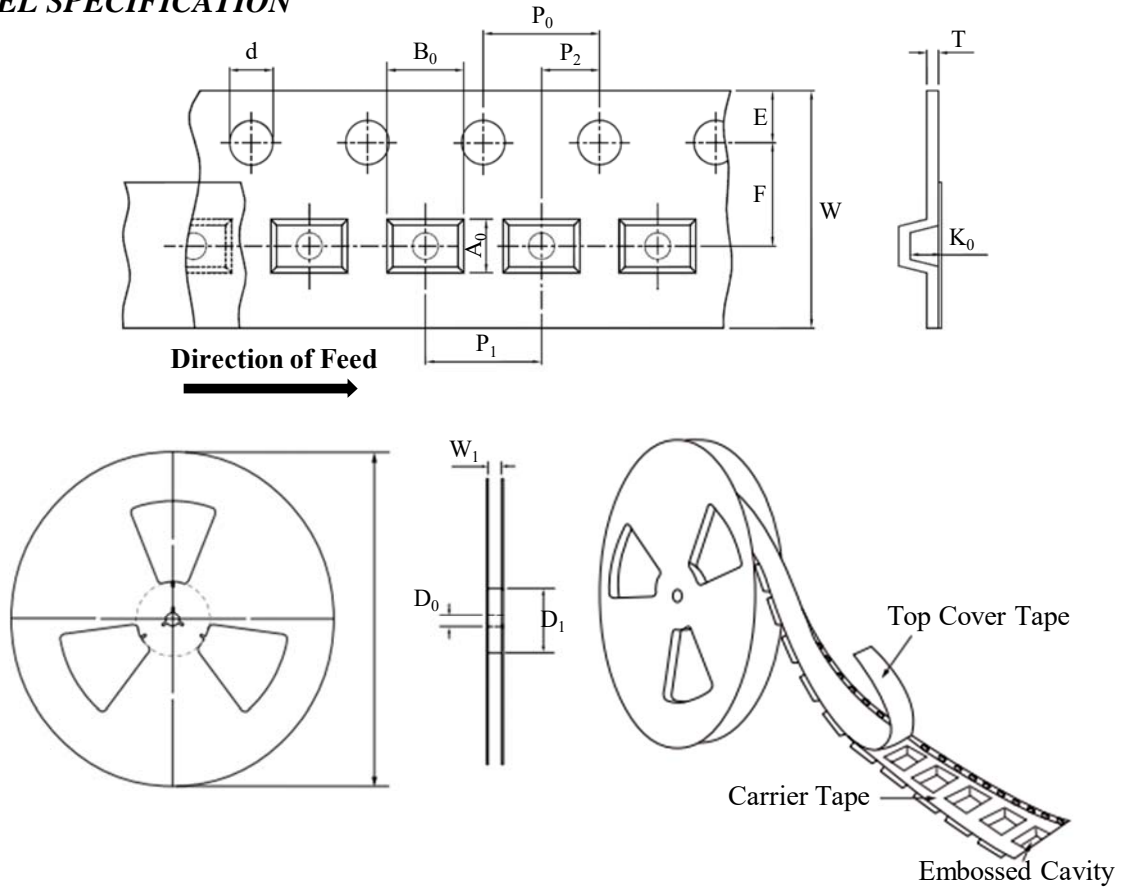


Fig.4-CAPACITANCE



ABAS21 SERIES 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

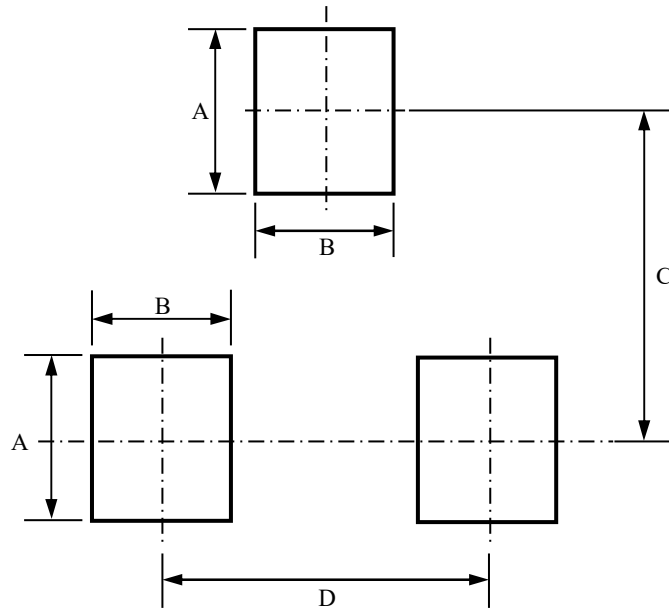
MARKING CODE

Part Number	Marking Code
ABAS21H	HC
ABAS21AH	RA
ABAS21CH	PZ
ABAS21SH	PY



ABAS21 SERIES SWITCHING DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit :mm

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