

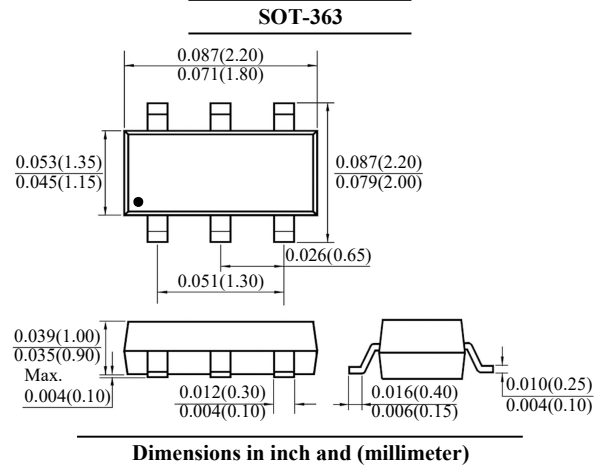
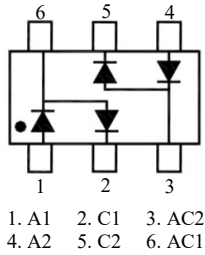


ABAV99DWH

SWITCHING DIODES

FEATURES

- For high-speed switching applications.
- AEC-Q101 Qualified.
- Suffix "H" indicates Halogen-free parts, ex. ABAV99DWH.



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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	100	V
Continuous Forward Current	Single Diode Load	150	mA
	Double Diode Load	130	
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	$t=1\mu\text{s}$	4.0	A
	$t=1\text{ms}$	1.0	
	$t=1\text{s}$	0.5	
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
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 substrate PC board, with minimum recommended pad layout.

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

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	$V_R=25\text{V}$	I_R	30	nA
	$V_R=80\text{V}$		0.5	μA
	$V_R=25\text{V}, T_J=150\text{ }^\circ\text{C}$		30	μA
	$V_R=80\text{V}, T_J=150\text{ }^\circ\text{C}$		50	μA
Total Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	C_T	1.5	pF
Reverse Recovery Time	$I_F=10\text{mA}, I_{rr}=0.1 \times I_R, V_R=6\text{V}, R_L=100\Omega$	t_{rr}	4	ns



ABAV99DWH SWITCHING DIODES

RATINGS AND CHARACTERISTIC CURVES

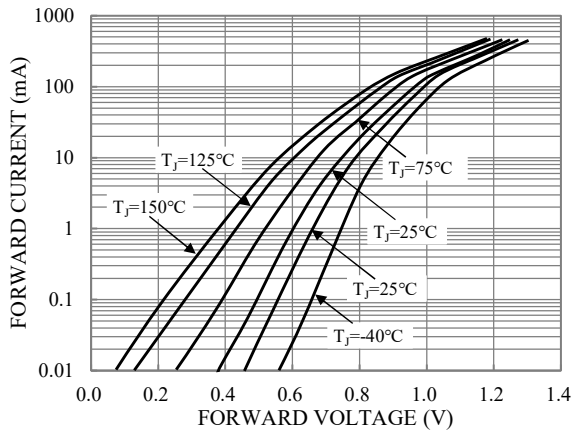


Fig.1-TYPICAL FORWARD CHARACTERISTICS

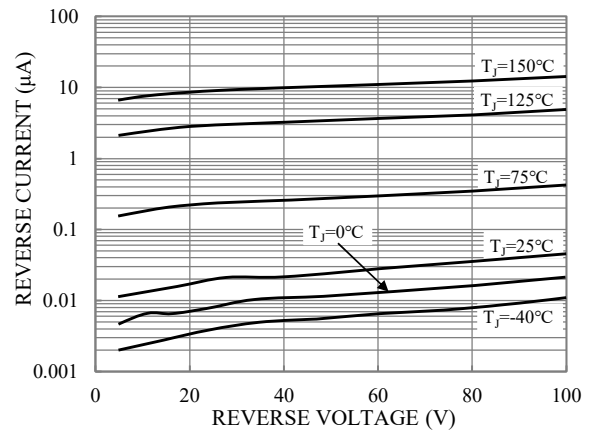


Fig.2-TYPICAL REVERSE CHARACTERISTICS

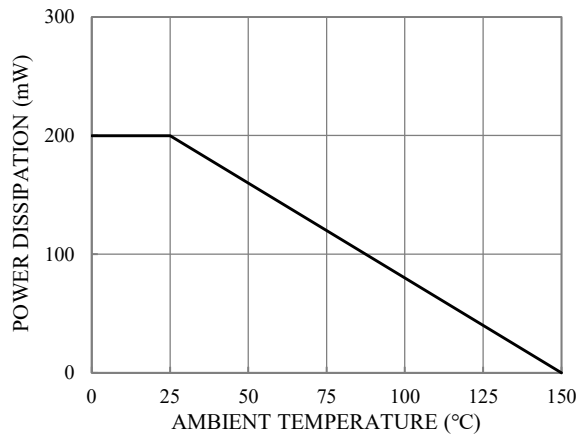


Fig.3-POWER DERATING CURVE

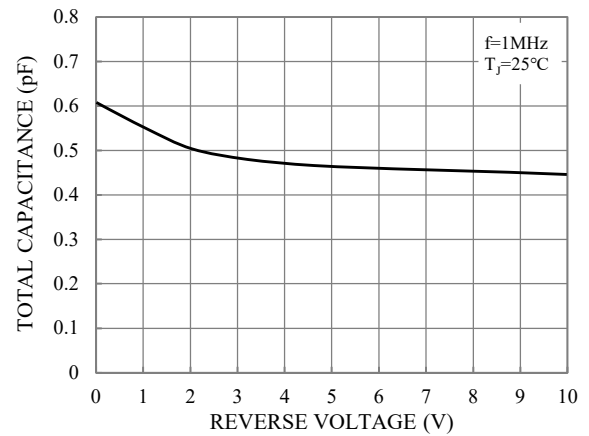
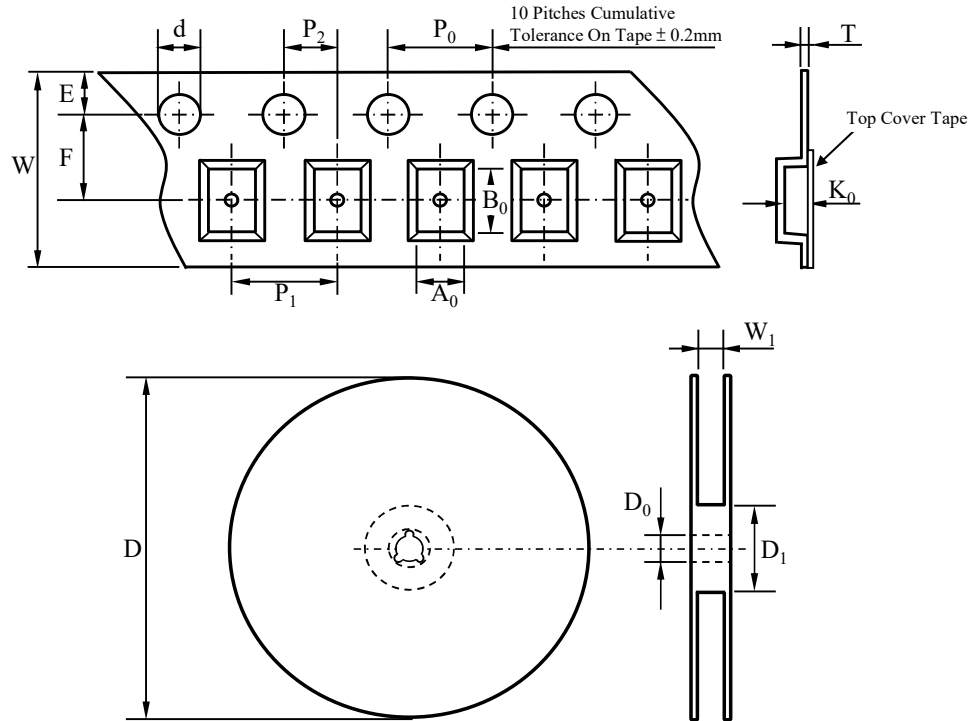


Fig.4-TOTAL CAPACITANCE



ABAV99DWH SWITCHING DIODES

TAPE & REEL SPECIFICATION



Item	Symbol	SOT-363
Carrier width	A_0	*
Carrier length	B_0	
Carrier depth	K_0	
Sprocket hole	d	1.50 ± 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. 54.00
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	MAX. 0.60
Tape width	W	MAX. 8.30
Reel width	W_1	8.40 ± 1.50

Note *: A_0 , B_0 , and K_0 are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max.

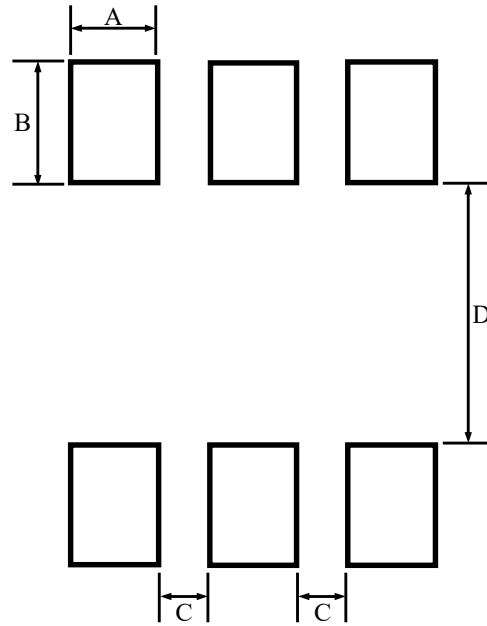
ORDER INFORMATION

Part Number	Marking Code	Reel Size	Quantity
ABAV99DWH	A7	7"	3,000



ABAV99DWH SWITCHING DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOT-363	0.42	0.60	0.23	1.30