

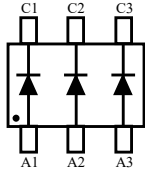


BAS16HTDWH

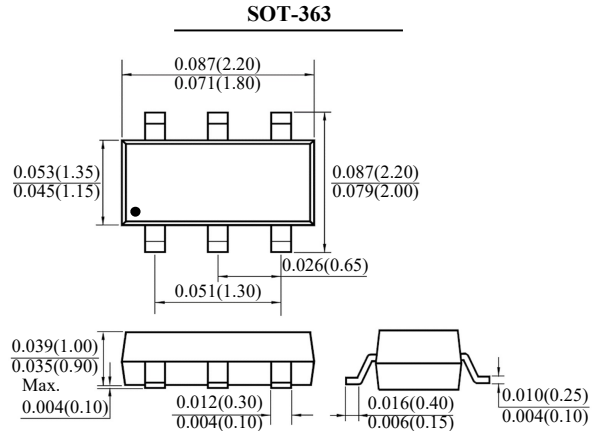
SWITCHING DIODES

FEATURES

- Fast Switching Speed
- Suffix "H" indicates Halogen-free parts, ex. BAS16HTDWH.



Top view
Internal Schematic



Dimensions in inch and (millimeter)

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

Parameter	Symbol	Value	Unit	
Peak Reverse Voltage	V_{RM}	100	V	
Reverse Voltage	V_R	75	V	
Average Rectified Output Current	$I_{F(AV)}$	200	mA	
Forward Continuous Current	I_{FM}	300	mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	at $t=1\mu\text{s}$	2	A
		at $t=1\text{s}$	1	
Power Dissipation	P_D	200	mW	
Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	T_J, 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@ $T_A=25\text{ }^\circ\text{C}$

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R=100\mu\text{A}$	$V_{(BR)R}$	75	-	V
Forward Voltage	$I_F=1\text{mA}$	V_F	-	0.715	V
	$I_F=10\text{mA}$		-	0.855	
	$I_F=50\text{mA}$		-	1.000	
	$I_F=150\text{mA}$		-	1.250	
Reverse Current	$V_R=20\text{V}$	I_R	-	25	nA
	$V_R=75\text{V}$		-	1	μA
	$V_R=25\text{V}, T_J=150^\circ\text{C}$		-	30	μA
	$V_R=75\text{V}, T_J=150^\circ\text{C}$		-	50	μA
Total Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	C_T	-	2	pF
Reverse Recovery Time	$I_F=10\text{mA}, V_R=6\text{V}, I_{tr}=0.1 \times I_R, R_L=100\Omega$	t_{rr}	-	4	ns



BAS16HTDWH

SWITCHING DIODES

RATINGS AND CHARACTERISTIC CURVES

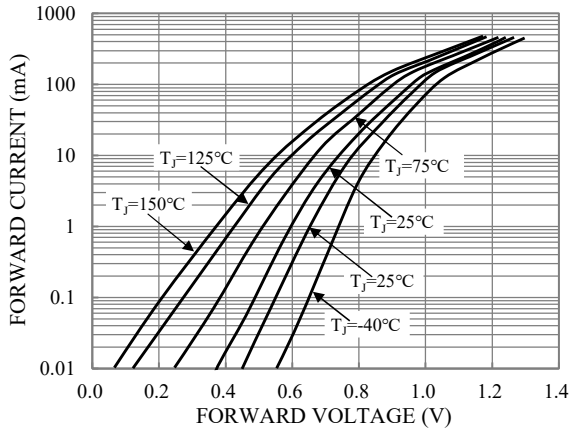


Fig.1-TYPICAL FORWARD CHARACTERISTICS

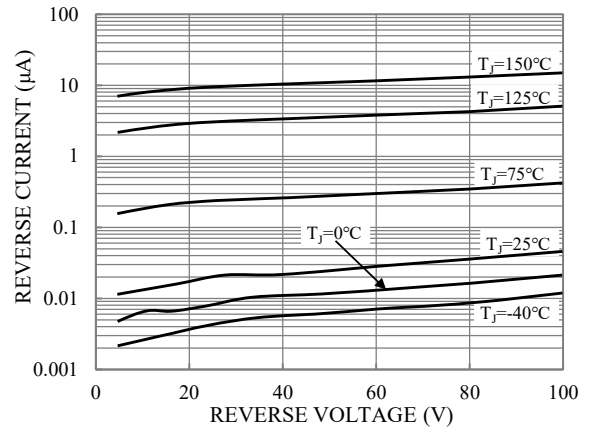


Fig.2-TYPICAL REVERSE CHARACTERISTICS

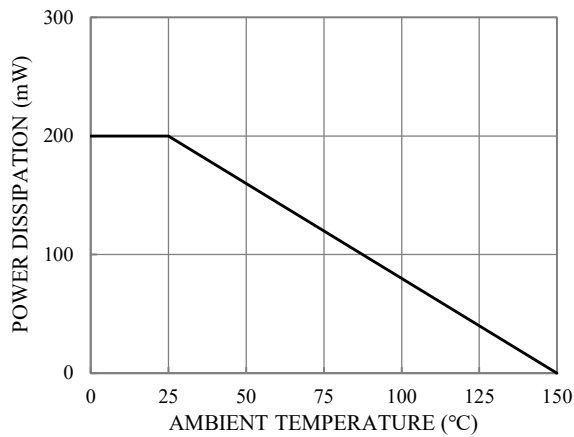


Fig.3-POWER DERATING CURVE

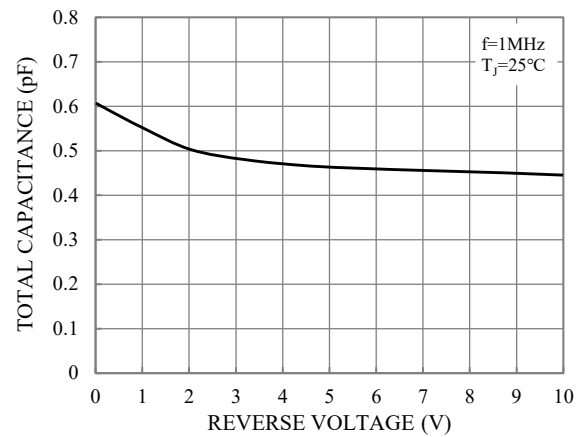


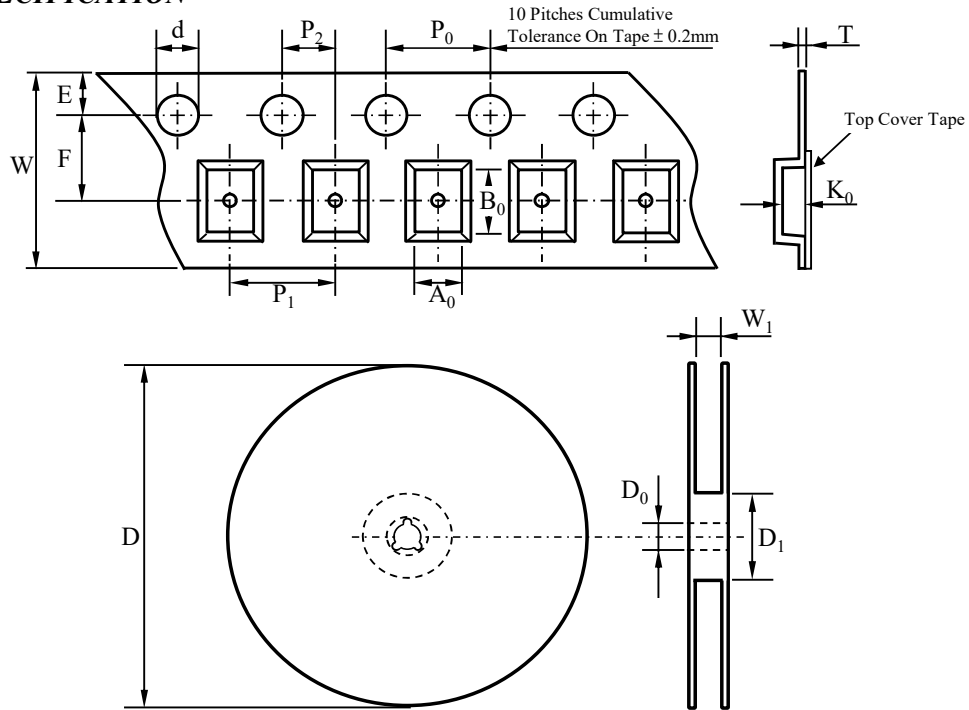
Fig.4-TOTAL CAPACITANCE



BAS16HTDWH

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. 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	MAX. 0.60
Tape width	W	8.00 ± 0.30
Reel width	W_1	MAX. 10.00

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

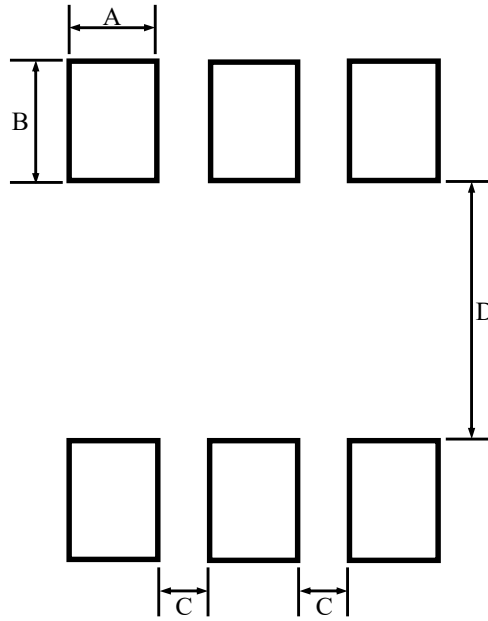
Part Number	Marking Code	Reel Size	Quantity
BAS16HTDWH	KA	7"	3,000



BAS16HTDWH

SWITCHING DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit :mm

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