



BAT42WH / BAT43WH

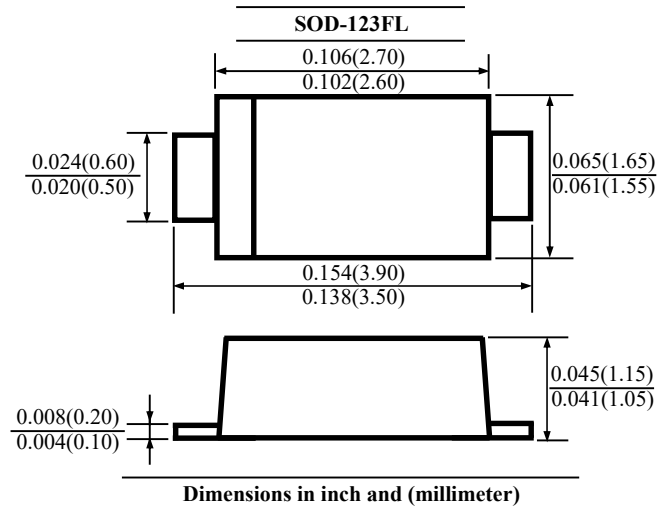
SCHOTTKY DIODES

FEATURES

- Low Forward Voltage Drop
- Suffix "H" indicates Halogen-free parts, ex. BAT42WH

MECHANICAL DATA

Case : SOD-123FL
 Epoxy : UL 94V-O rate flame retardant
 Polarity : Indicated by cathode band
 Mounting position : Any



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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current at $t_p < 10\text{ms}$	I_{FSM}	2	A
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +125	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Breakdown Voltage	$I_R=100\mu\text{A}$	$V_{(BR)R}$	30	-	-	V
Forward Voltage	$I_F=200\text{mA}$	V_F	-	-	1000	mV
	BAT42WH $I_F=10\text{mA}$		-	-	400	
	BAT42WH $I_F=50\text{mA}$		-	-	650	
	BAT43WH $I_F=2\text{mA}$		260	-	330	
	BAT43WH $I_F=15\text{mA}$		-	-	450	
Reverse Leakage Current	$V_R=25\text{V}$	I_R	-	-	0.5	μA
Capacitance	$V_R=1\text{V}$, $f=1\text{MHz}$	C_T	-	-	10	pF
Reverse Recovery Time	$I_F=I_R=10\text{mA}$, $I_{tr}=0.1 \times I_R$, $R_L=100\Omega$	t_{rr}	-	-	5	ns



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RATINGS AND CHARACTERISTIC CURVES

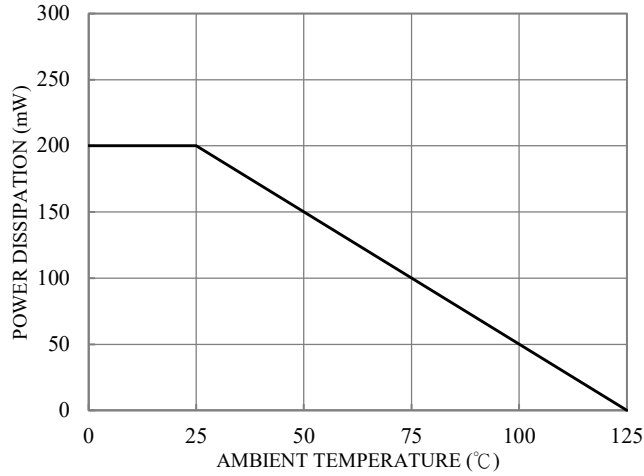


Fig. 1-POWER DERATING CURVE

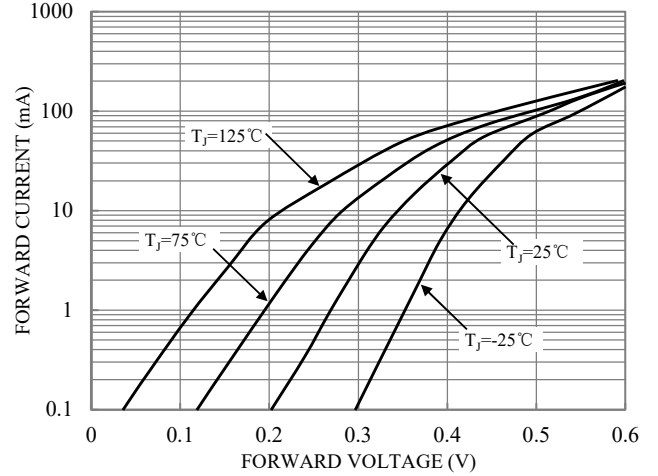


Fig. 2-FORWARD CHARACTERISTICS CURVE

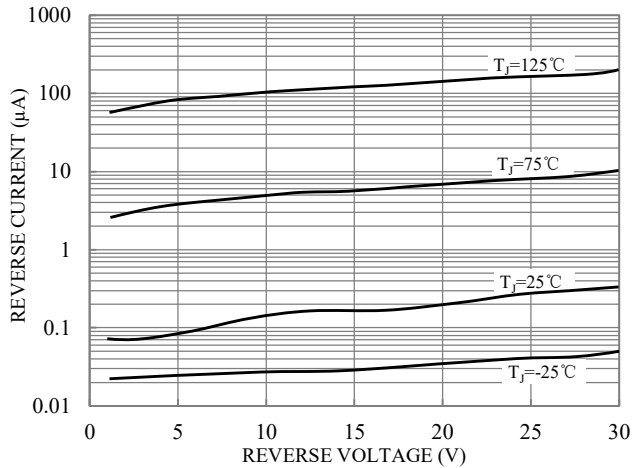


Fig. 3-REVERSE CHARACTERISTICS CURVE

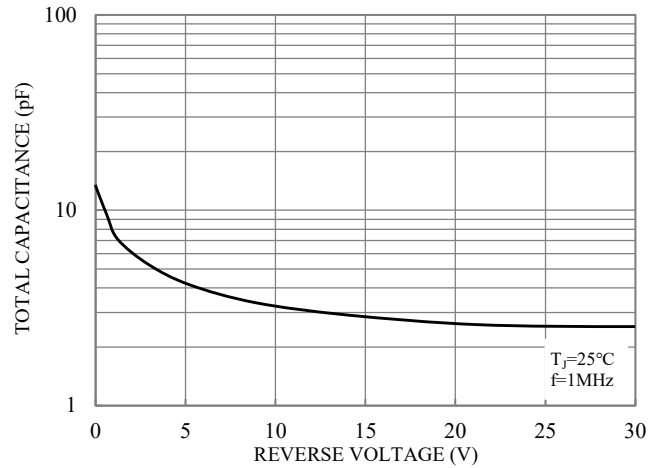


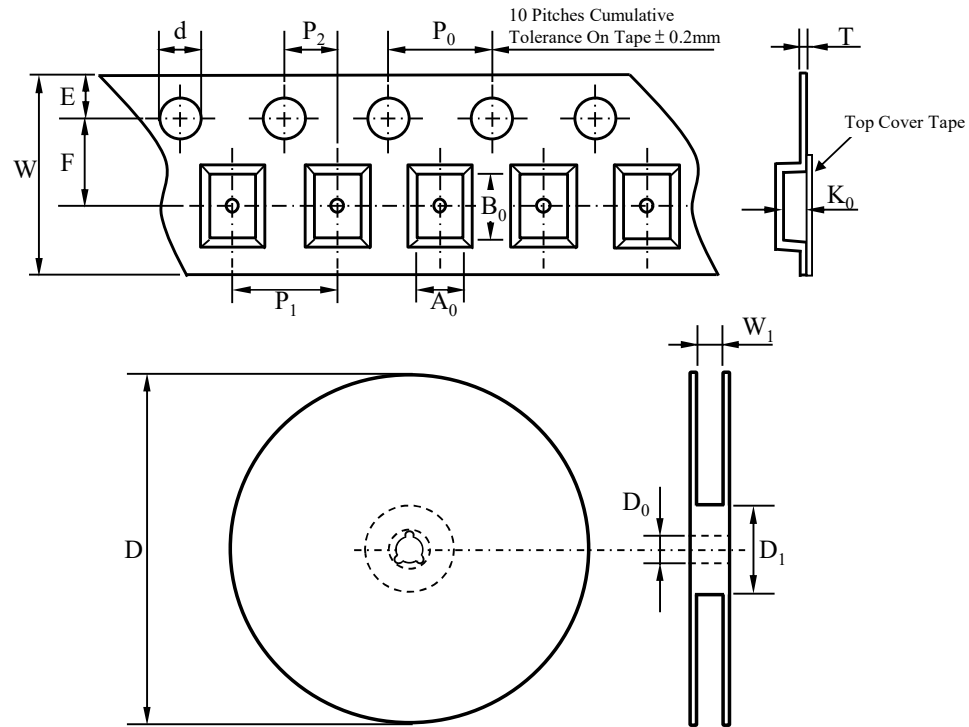
Fig. 4-TOTAL CAPACITANCE



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TAPE & REEL SPECIFICATION



Item	Symbol	SOD-123FL
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	MAX. 8.30
Reel width	W_1	MAX. 14.90

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

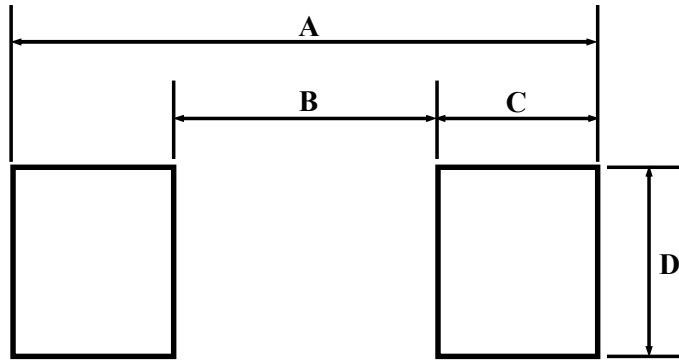
Part Number	Marking Code	Reel Size	Quantity
BAT42WH	PX	7"	3,000
BAT43WH	PY		



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SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOD-123FL	4.10	2.00	1.05	1.50