

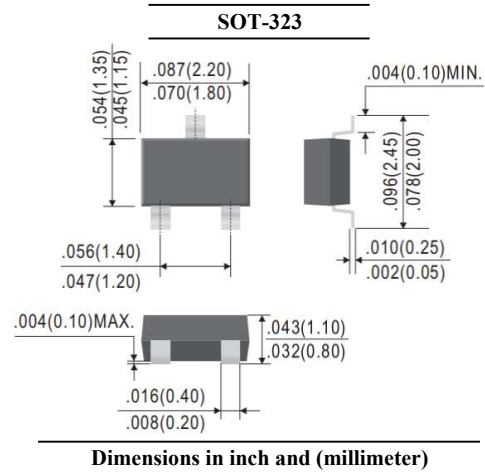
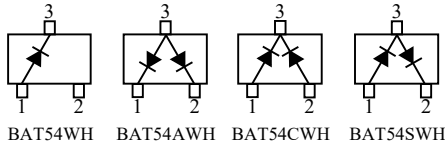


BAT54WH / AWH / CWH / SWH

SCHOTTKY DIODES

FEATURES

- Low forward voltage
- Suffix "H" indicates Halogen-free parts, ex. BAT54WH.



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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Reverse voltage	V_R	30	V
Forward Current	I_F	200	mA
Peak Forward Surge Current ($t_p = 10\text{ ms}$)	I_{FSM}	600	mA
Total Power Dissipation	P_{tot}	200	mW
Thermal Resistance from Junction Ambient	R_{thJA}	625	$^\circ\text{C} / \text{W}$
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +150	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	Min	Max	Unit
Forward voltage	$I_F = 0.1\text{mA}$	V_F	-	240	mV
	$I_F = 1\text{mA}$		-	320	
	$I_F = 10\text{mA}$		-	400	
	$I_F = 30\text{mA}$		-	500	
	$I_F = 100\text{mA}$		-	1000	
Reverse Breakdown Voltage	$I_R = 100\mu\text{A}$	$V_{BR(R)}$	30	-	V
Reverse Current	$V_R = 25\text{V}$	I_R	-	2	μA
Diode Capacitance	$V_R = 1\text{V}$, $f = 1\text{MHz}$	C_d	-	10	pF
Reverse recovery time	$I_F = 10\text{mA}$ through $I_R = 10\text{mA}$ to $I_R = 1\text{mA}$, $R_L = 100\ \Omega$	t_{rr}	-	5	ns



BAT54WH / AWH / CWH / SWH

SCHOTTKY DIODES

RATINGS AND CHARACTERISTIC CURVES

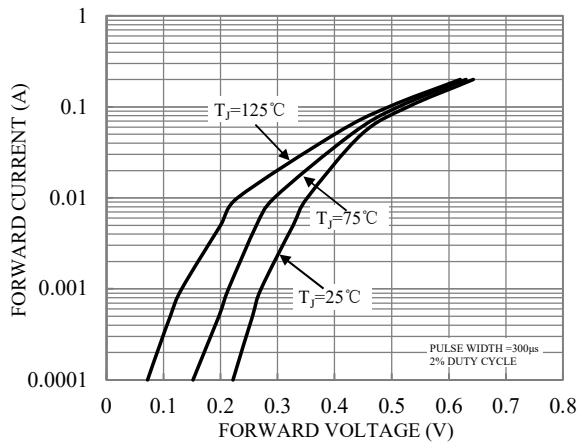


Fig. 1- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

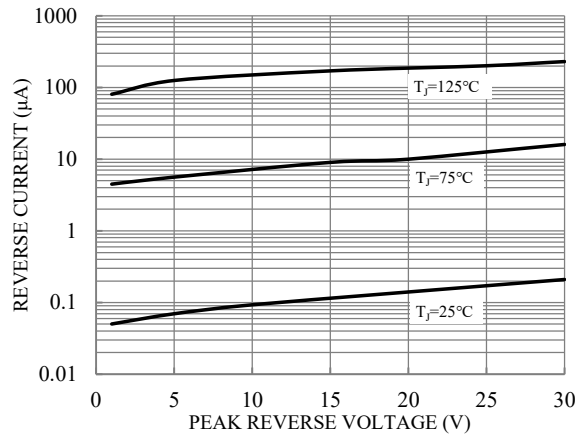


Fig. 2- TYPICAL REVERSE CHARACTERISTICS

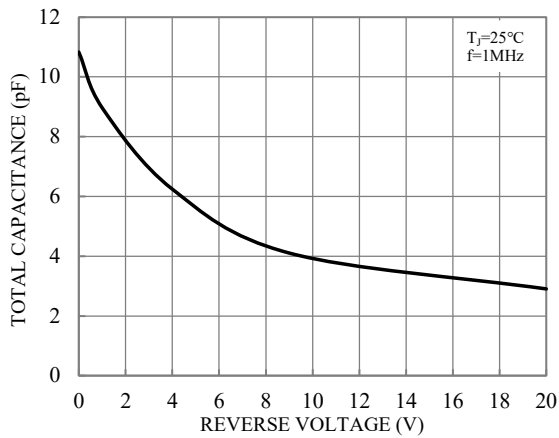


Fig. 3- TYPICAL TOTAL CAPACITANCE

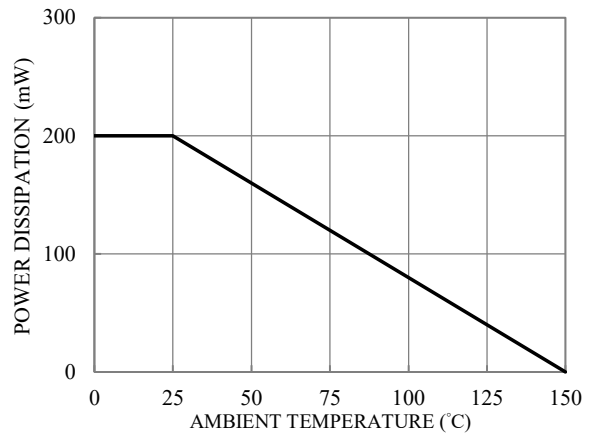
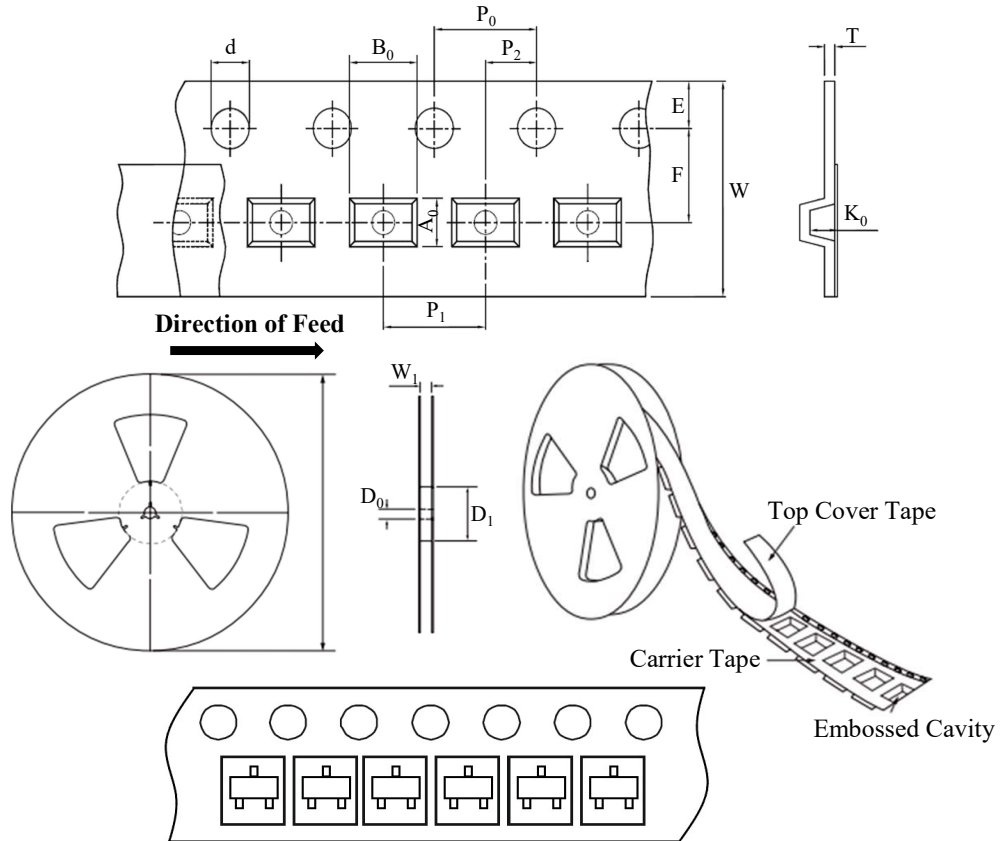


Fig. 4- POWER DERATING CURVE



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TAPE & REEL SPECIFICATION



Item	Symbol	SOT-323
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	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W_1	MAX. 14.50

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

Package	Reel Size	Quantity
SOT-323	7"	3,000

MARKING CODE

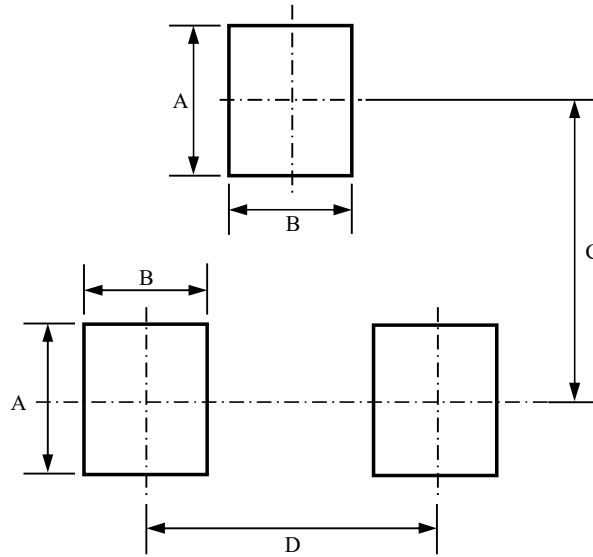
Part Number	Marking Code
BAT54WH	L4
BAT54AWH	L42
BAT54CWH	L43
BAT54SWH	L44



BAT54WH / AWH / CWH / SWH

SCHOTTKY DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOT-323	0.80	0.80	1.60	1.30