

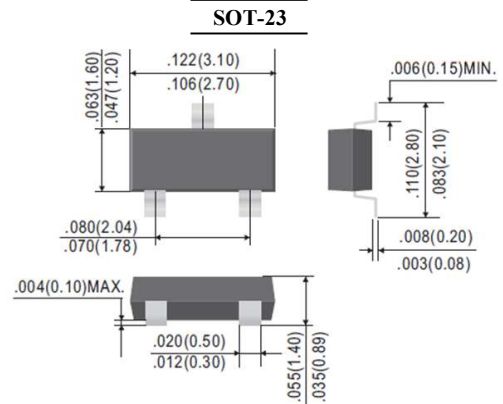
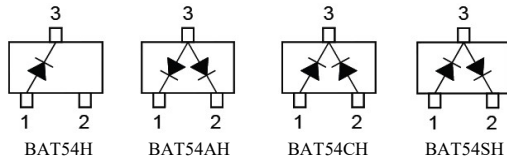


# BAT54H / AH / CH / SH

## SCHOTTKY BARRIER DIODE

### FEATURES

- Low forward voltage
- Suffix "H" indicates Halogen-free parts, ex. BAT54H.



Dimensions in inch and (millimeter)

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	30	V
Forward Current	$I_F$	200	mA
Non-Repetitive Peak Forward Surge Current @ $t_p = 1.0$ s	$I_{FSM}$	600	mA
Total Power Dissipation	$P_{tot}$	225	mW
Thermal Resistance from Junction Ambient	$R_{thJA}$	556	$^\circ\text{C} / \text{W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

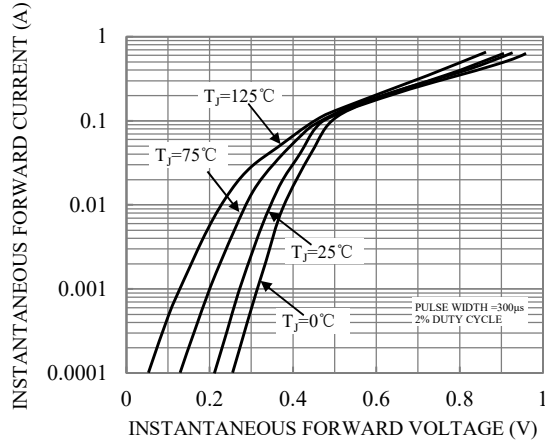
Parameter	Conditions	Symbol	Min	Max	Unit
Forward Voltage	$I_F = 0.1\text{mA}$	$V_F$	-	240	mV
	$I_F = 1\text{mA}$		-	320	
	$I_F = 10\text{mA}$		-	400	
	$I_F = 30\text{mA}$		-	500	
	$I_F = 100\text{mA}$		-	1000	
Reverse Breakdown Voltage	$I_R = 10\mu\text{A}$	$V_{(BR)R}$	30	-	V
Reverse Current	$V_R = 25\text{V}$	$I_R$	-	2	$\mu\text{A}$
Total Capacitance	$V_R = 1\text{V}$ , $f = 1\text{MHz}$	$C_T$	-	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



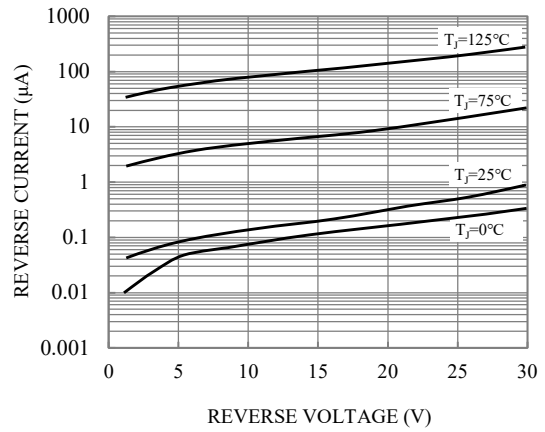
# BAT54H / AH / CH / SH

## SCHOTTKY BARRIER DIODE

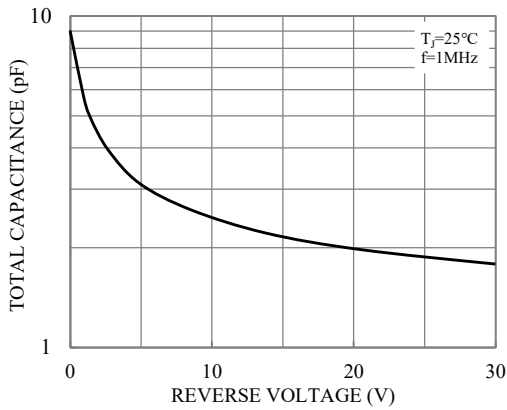
### RATINGS AND CHARACTERISTIC CURVES



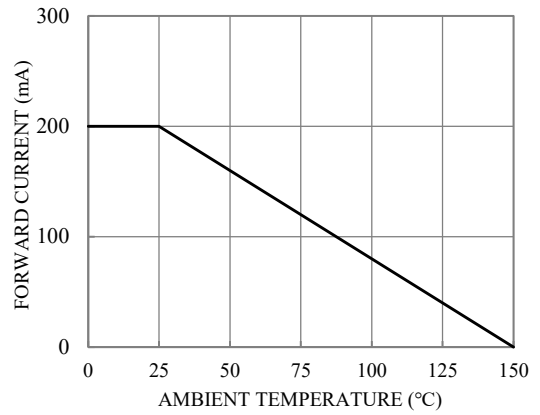
**Fig. 1-TYPICAL FORWARD CHARACTERISTICS**



**Fig. 2-TYPICAL REVERSE CHARACTERISTICS**



**Fig. 3-TYPICAL TOTAL CAPACITANCE**

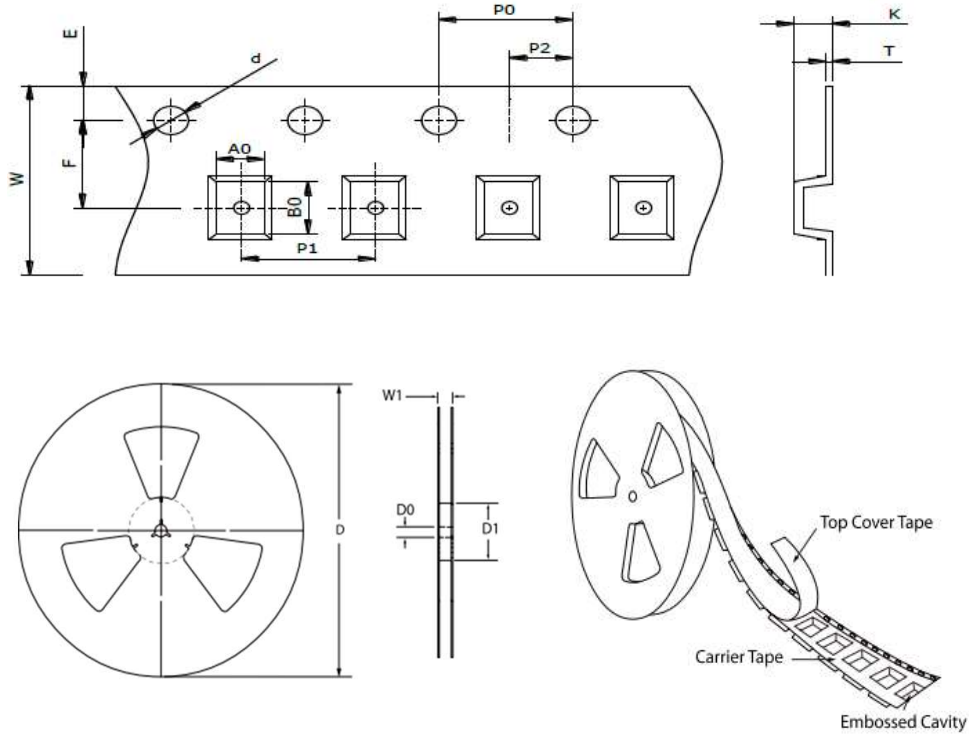


**Fig. 4-FORWARD CURRENT DERATING CURVE**



# BAT54H / AH / CH / SH SCHOTTKY BARRIER DIODE

## TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A <sub>0</sub>	3.20 ± 0.10
Carrier length	B <sub>0</sub>	2.90 ± 0.10
Carrier depth	K	1.50 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D <sub>0</sub>	13.00 ± 0.50
Reel inner diameter	D <sub>1</sub>	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P <sub>0</sub>	4.00 ± 0.10
Punch hole pitch	P <sub>1</sub>	4.00 ± 0.10
Embossment center	P <sub>2</sub>	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W <sub>1</sub>	MAX. 14.50

## ORDER INFORMATION

Package	Reel Size	Quantity
SOT-23	7"	3,000

## MARKING CODE

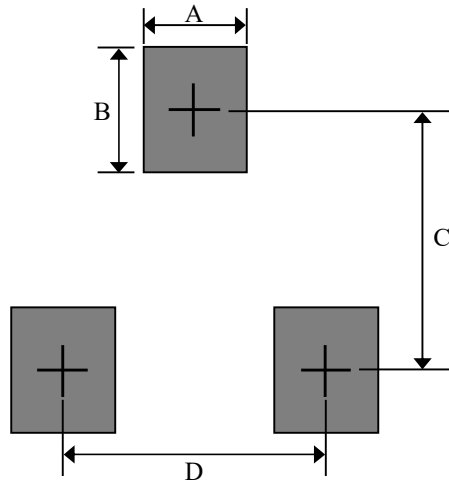
Part Number	Marking Code
BAT54H	L4
BAT54AH	L42
BAT54CH	L43
BAT54SH	L44



# BAT54H / AH / CH / SH

## SCHOTTKY BARRIER DIODE

### SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D
SOT-23	0.80	1.00	2.40	1.90