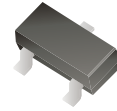


BAT54xWT-HF Series

RoHS Device
Halogen Free



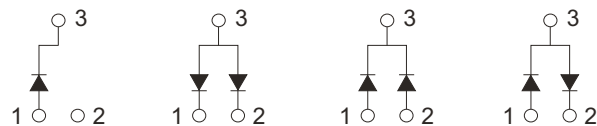
Features

- Epoxy meets UL-94 V-0 flammability rating.
- Moisture sensitivity level 1.
- Low forward voltage.
- Surface mount device.

Mechanical data

- Case: SOT-323, molded plastic.
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.

Circuit Diagram

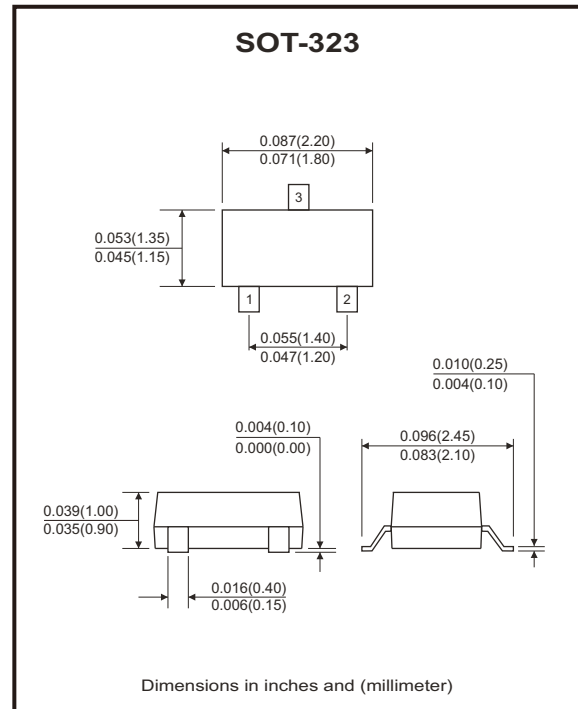


BAT54WT-HF

BAT54AWT-HF

BAT54CWT-HF

BAT54SWT-HF



Maximum Rating (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Continuous reverse voltage	V_R	30	V
Forward continuous current	I_F	200	mA
Non-repetitive peak forward surge current @ $t < 1s$	I_{FSM}	0.6	A
Total power dissipation @ Ta=25°C	P_d	200	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	500	°C/W
Operation junction temperature range	T_J	-55 to +125	°C
Storage temperature range	T_{STG}	-55 to +125	°C

Electrical Characteristics (at $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Max. instantaneous forward voltage	V_F	$I_{FM} = 0.1\text{mA}$			0.24	V
		$I_{FM} = 1\text{mA}$			0.32	
		$I_{FM} = 10\text{mA}$			0.40	
		$I_{FM} = 30\text{mA}$			0.50	
		$I_{FM} = 100\text{mA}$			1.00	
Max. DC reverse current	I_R	$V_R = 25\text{V}$			2	μA
Typ. junction Capacitance	C_J	$V_R = 1\text{V}, f = 1\text{MHz}$		10		pF
Max. reverse recovery time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$			5	ns

Rating and Characteristic Curves (BAT54xWT-HF Series)

Fig.1 - Forward Characteristic

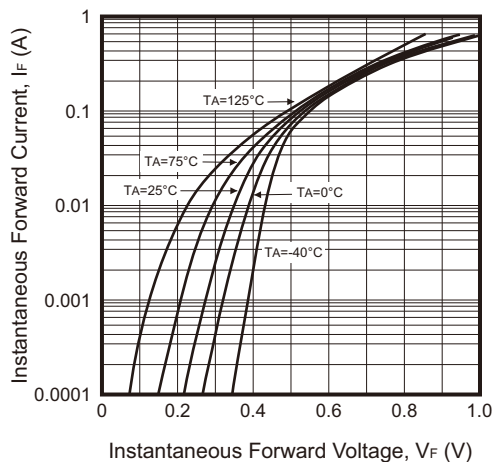


Fig.2 - Typical Reverse Characteristic

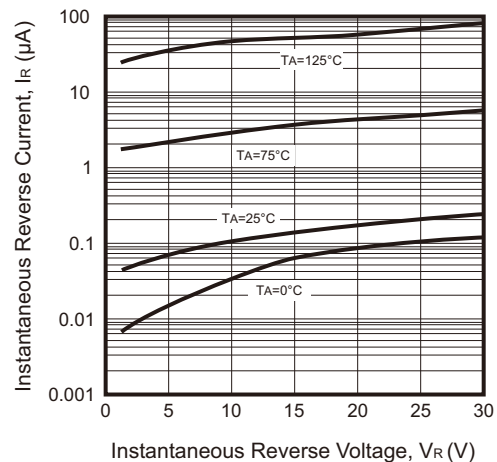


Fig.3 - Typical Capacitance vs. Reverse Voltage

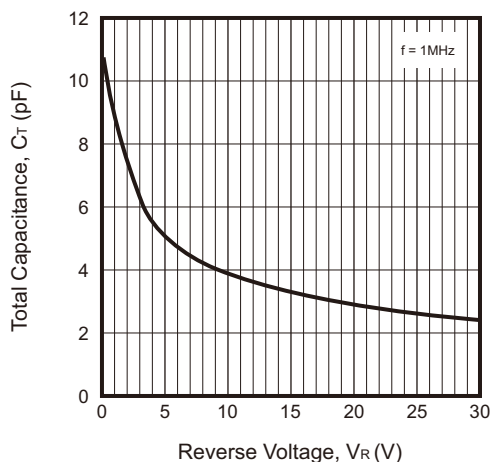
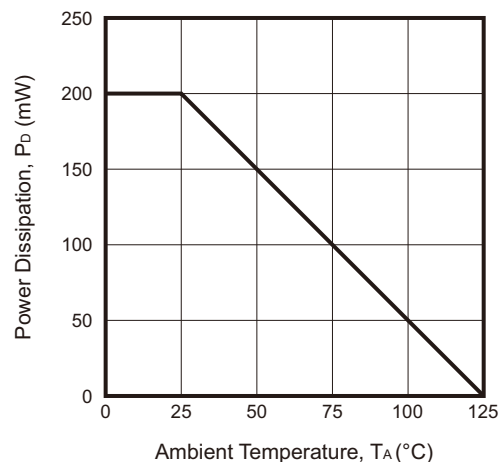
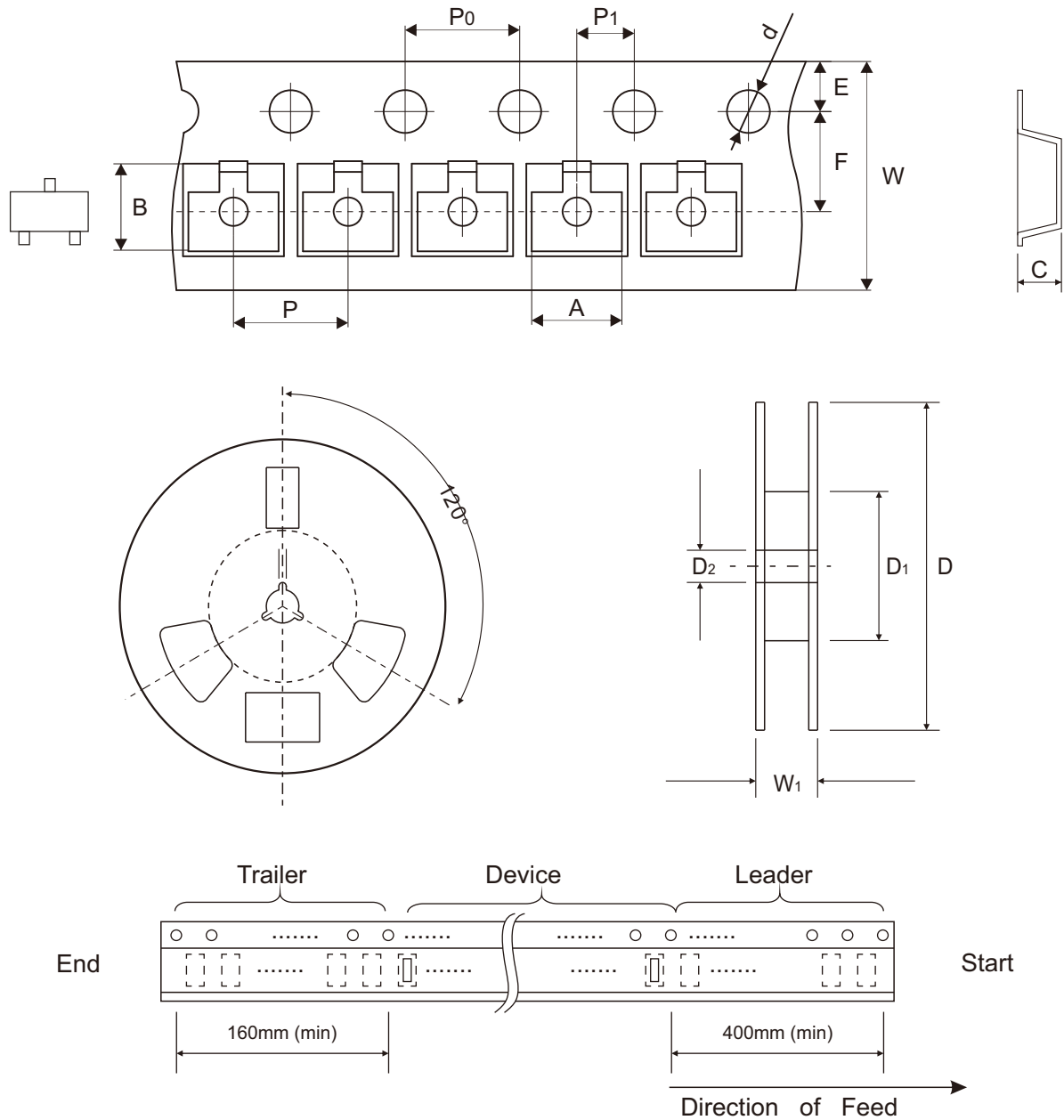


Fig.4 - Power Derating Curve



Company reserves the right to improve product design, functions and reliability without notice.

Reel Taping Specification



	SYMBOL	A	B	C	d	D	D1	D2
SOT-323	(mm)	2.25 ± 0.10	2.55 ± 0.10	1.19 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.089 ± 0.004	0.100 ± 0.004	0.047 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

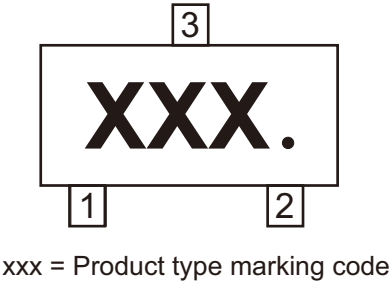
	SYMBOL	E	F	P	P0	P1	W	W1
SOT-323	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.012 - 0.004	0.484 ± 0.039

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REV:A

Marking Code

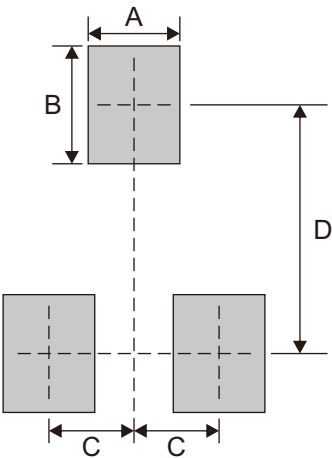
Part Number	Marking Code
BAT54WT-HF	KL5.
BAT54AWT-HF	KL6.
BAT54CWT-HF	KL7.
BAT54SWT-HF	KL8.



Suggested P.C.B. PAD Layout

SIZE	SOT-323	
	(mm)	(inch)
A	0.70	0.028
B	0.90	0.035
C	0.65	0.026
D	1.90	0.075

Note: 1. The pad layout is for reference purposes only.



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-323	3,000	7