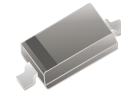


BAT54WS-HF

RoHS Device
Halogen Free

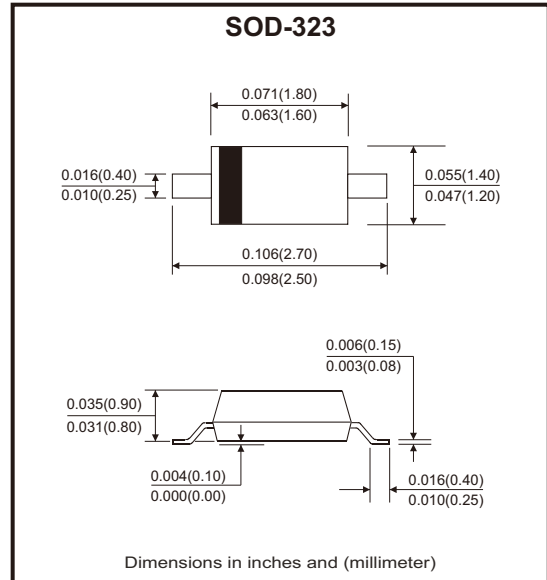


Features

- High reliability.
- Fast switching.
- Low forward voltage schottky rectifier.

Mechanical data

- Case: SOD-323, molded plastic.
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Polarity: Cathode line denotes the cathode end.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Peak forward surge current @ $t_p < 1s$	I_{FSM}	0.6	A
Average forward current	I_{FAV}	200	mA
Power dissipation	P_{tot}	200	mW
Maximum junction temperature range	T_J	-55 to +125	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Maximum forward voltage	V_F	$I_F = 0.1\text{mA}$ $I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 30\text{mA}$ $I_F = 100\text{mA}$			0.24 0.32 0.40 0.50 1.00	V
Maximum reverse current	I_R	$V_R = 25\text{V}$			2	μA
Minimum breakdown voltage	$V_{(BR)}$	$I_R = 10\mu\text{A}$	30			V
Typical diode capacitance	C_D	$V_R = 1\text{V}, f = 1\text{MHz}$		10		pF
Maximum reverse recovery time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 1\text{mA}, R_L = 100\Omega$			5	ns

Typical Rating and Characteristic Curves (BAT54WS-HF)

Fig.1 - Forward Characteristics

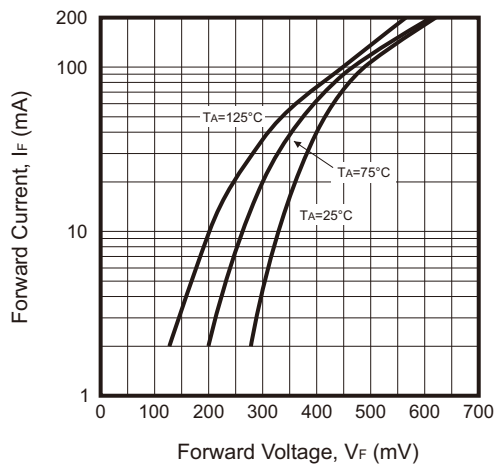


Fig.2 - Reverse Characteristics

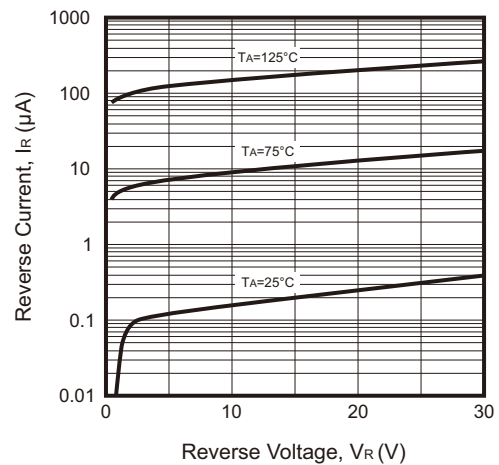
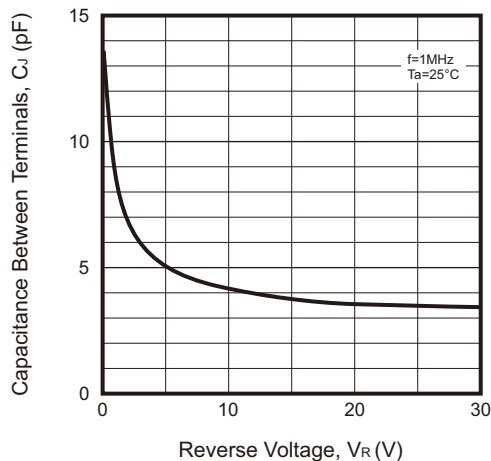
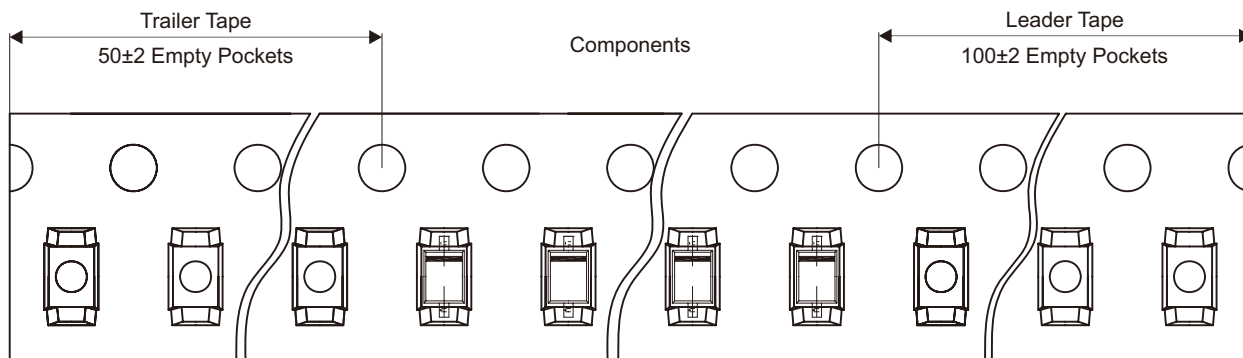
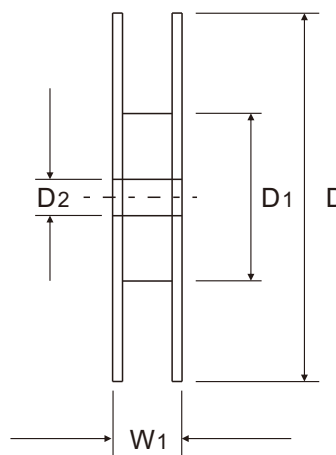
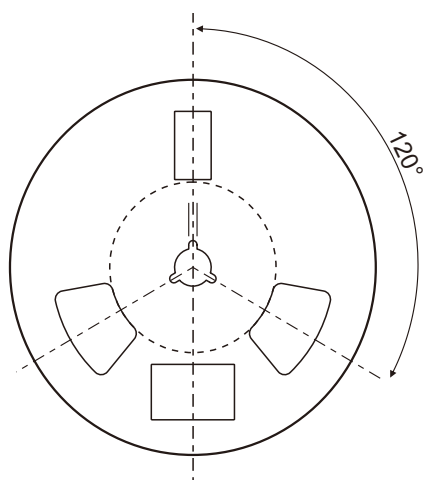
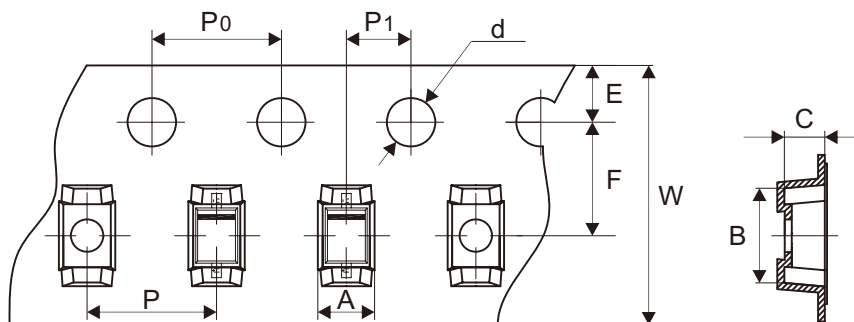


Fig.3 - Capacitance Between Terminals Characteristics



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.50 ± 0.05	2.90 ± 0.10	1.25 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.059 ± 0.002	0.114 ± 0.004	0.049 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-323	SYMBOL	E	F	P	P0	P1	W	W1
	(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

Marking Code

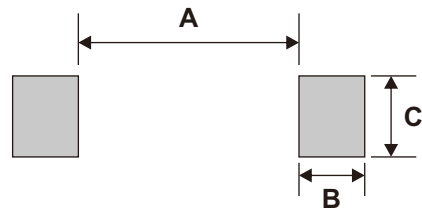
Part Number	Marking Code
BAT54WS-HF	L9.



█ = Cathode band

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	1.88	0.074
B	0.56	0.022
C	0.69	0.027



Standard Packaging

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