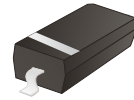


ABAT46W-HF

RoHS Device
Halogen Free



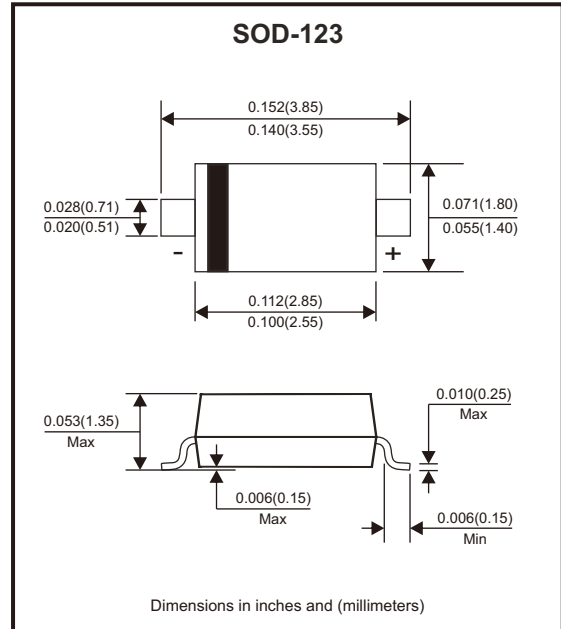
Features

- Low turn-on voltage.
- AEC-Q101 Qualified.

Mechanical data

- Case: SOD-123, 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}	100	V
Average forward current	I_o	150	mA
Peak forward surge current @tp = 8.3ms	I_{FSM}	0.75	A
Power dissipation	P_D	200	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	300	K/W
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
Forward voltage	V_F	$I_F = 0.1mA$			0.25	V
		$I_F = 10mA$			0.45	
		$I_F = 250mA$			1.00	
Reverse current	I_R	$V_R = 1.5V$			0.3	μA
		$V_R = 10V$			0.5	
		$V_R = 50V$			1	
		$V_R = 75V$			2	
Reverse breakdown voltage	V_{BR}	$I_R = 100\mu A$	100			V
Diode capacitance	C_J	$V_R = 0V, f = 1MHz$			20	pF
		$V_R = 1V, f = 1MHz$			12	

Typical Rating and Characteristic Curves (ABAT46W-HF)

Fig.1 - Forward Characteristics

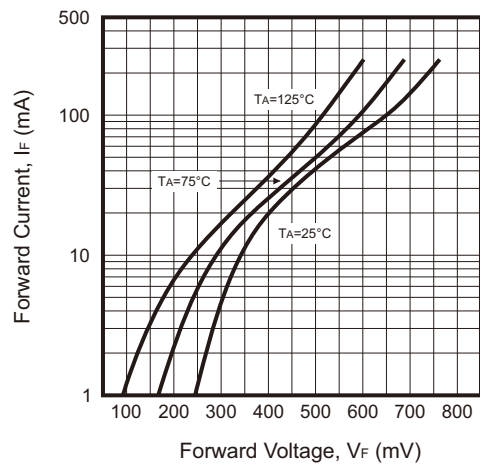


Fig.2 - Reverse Characteristics

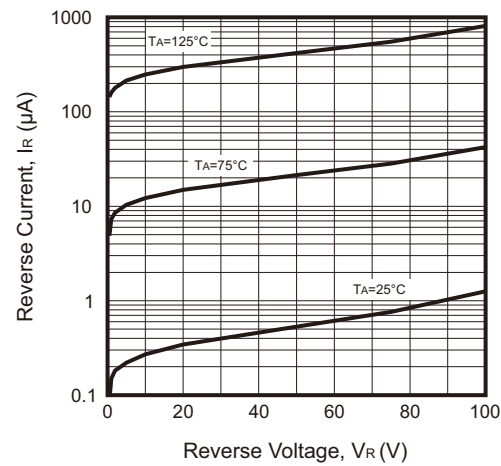
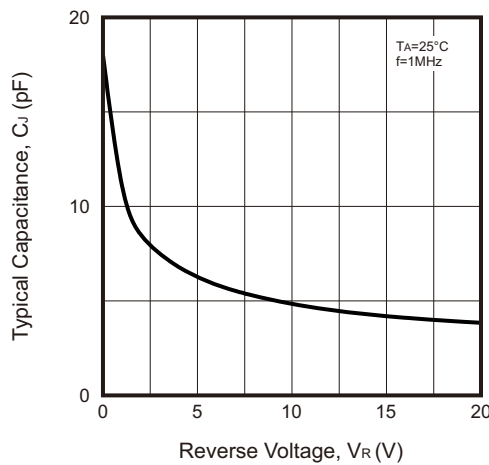
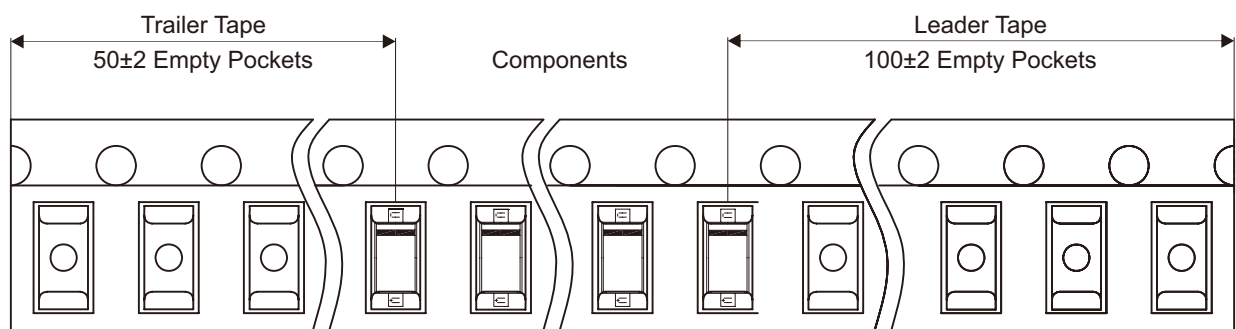
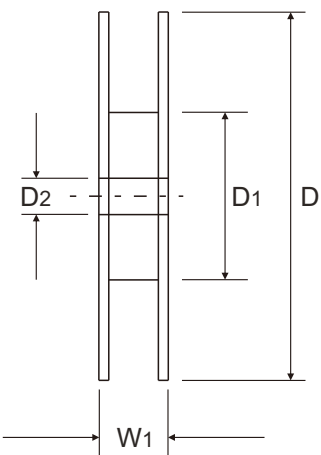
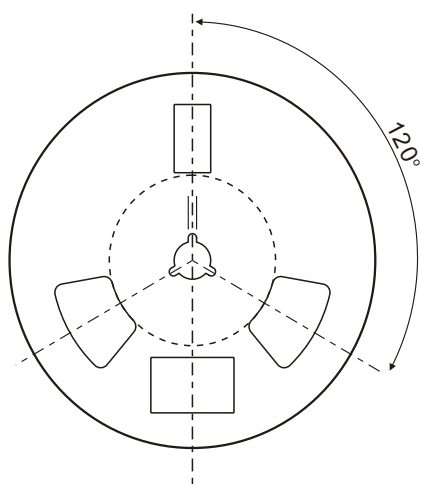
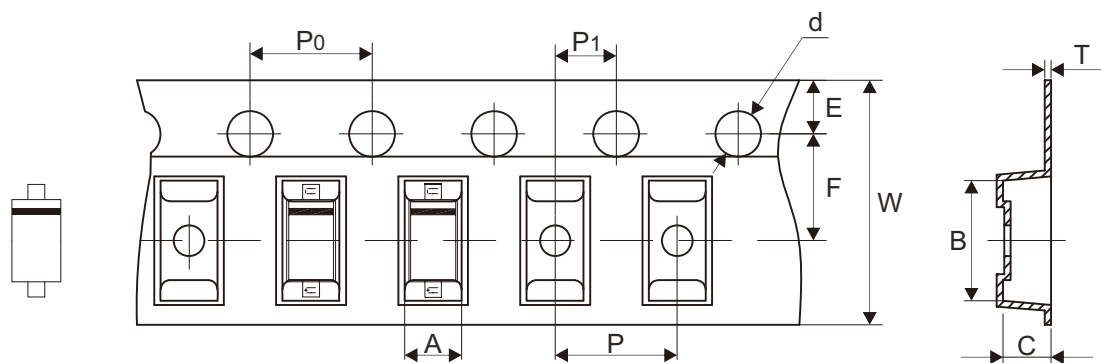


Fig.3 - Capacitance Characteristics



Reel Taping Specification

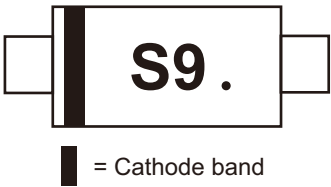


SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.75 ± 0.10	3.94 ± 0.10	1.52 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.069 ± 0.004	0.155 ± 0.004	0.060 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-123	SYMBOL	E	F	P	P1	P0	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.20 ± 0.02	8.00 + 0.20 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.157 ± 0.004	0.008 ± 0.001	0.315 + 0.008 - 0.004	0.484 ± 0.039

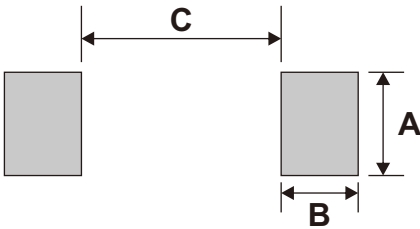
Marking Code

Part Number	Marking Code
ABAT46W-HF	S9.



Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.22	0.048
B	0.91	0.036
C	2.36	0.093



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123	3,000	7