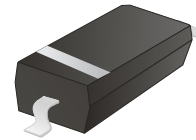


ACDBW0540-HF

Reverse Voltage: 40 Volts
Forward Current: 0.5 Amp
RoHS Device
Halogen Free



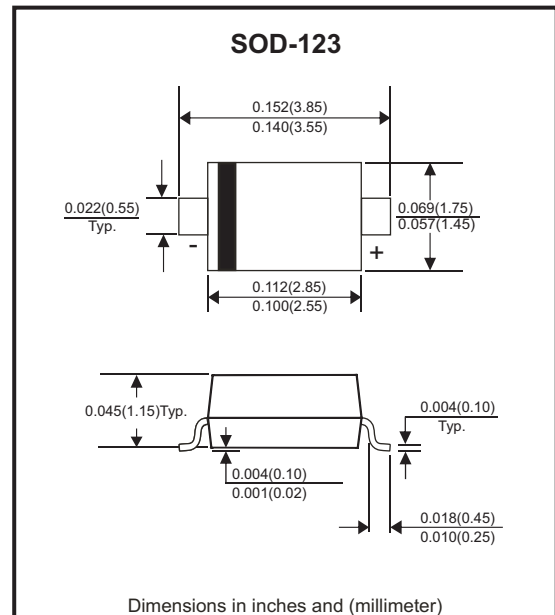
Features

- Low forward voltage drop.
- High conductance.
- Guard ring construction for transient protection.
- Comply with AEC-Q101.

Mechanical data

- Case: SOD-123, molded plastic.
- Polarity: Color band denotes cathode end.
- Weight: 0.01 gram(approx.).

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V _{RRM}	40	V
Working peak reverse voltage	V _{RWM}		
DC reverse voltage	V _R		
RMS reverse voltage	V _{R(RMS)}	28	V
Average rectified output current @ T _L =100°C	I _o	0.5	A
Non-repetitive peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	5.5	A
Power dissipation	P _D	410	mW
Typical thermal resistance (Junction to ambient)	R _{θJA}	244	°C/W
Junction temperature	T _J	125	°C
Storage temperature	T _{STG}	-55 ~ +125	°C
Voltage rate of change	dv/dt	1000	V/μs

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage	$I_R=20\mu\text{A}$	$V_{(BR)R}$	40			V
Forward voltage	$I_F=0.5\text{A}$, $T_J=25^{\circ}\text{C}$ $I_F=0.5\text{A}$, $T_J=100^{\circ}\text{C}$	V_F			0.51 0.46	V
Leakage current	$V_R=20\text{V}$, $T_J=25^{\circ}\text{C}$ $V_R=40\text{V}$, $T_J=25^{\circ}\text{C}$	I_R			0.01 0.02	mA
Junction capacitance	$V_R=0\text{V}$, $f=1\text{MHz}$	C_J			170	pF

RATING AND TYPICAL CHARACTERISTIC CURVES (ACDBW0540-HF)

Fig.1 - Forward Current Derating Curve

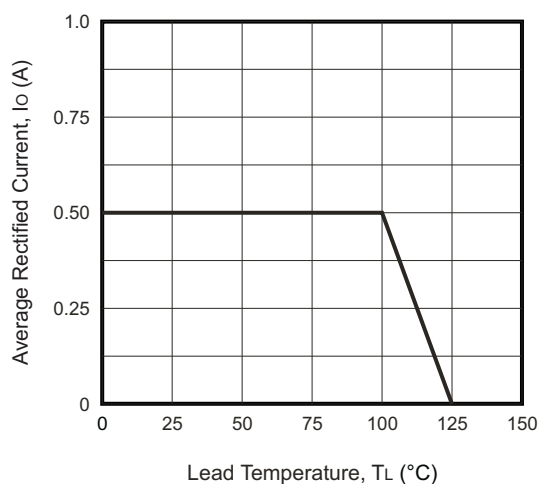


Fig.2 - Typical Forward Characteristics

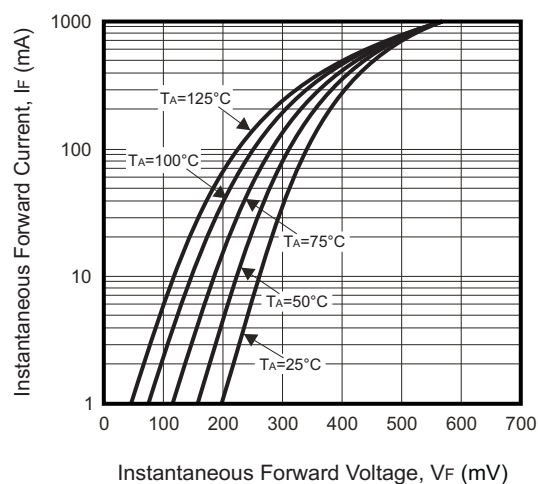
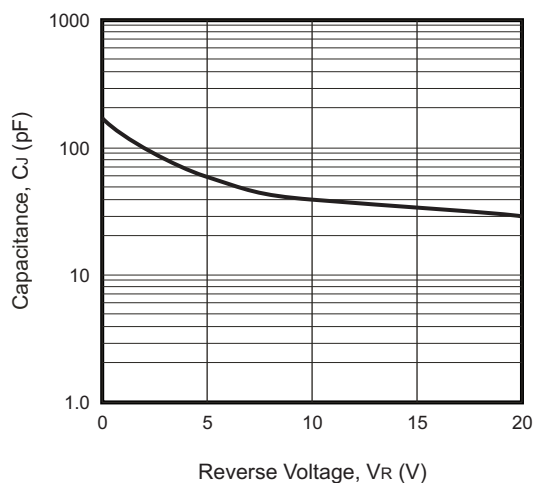
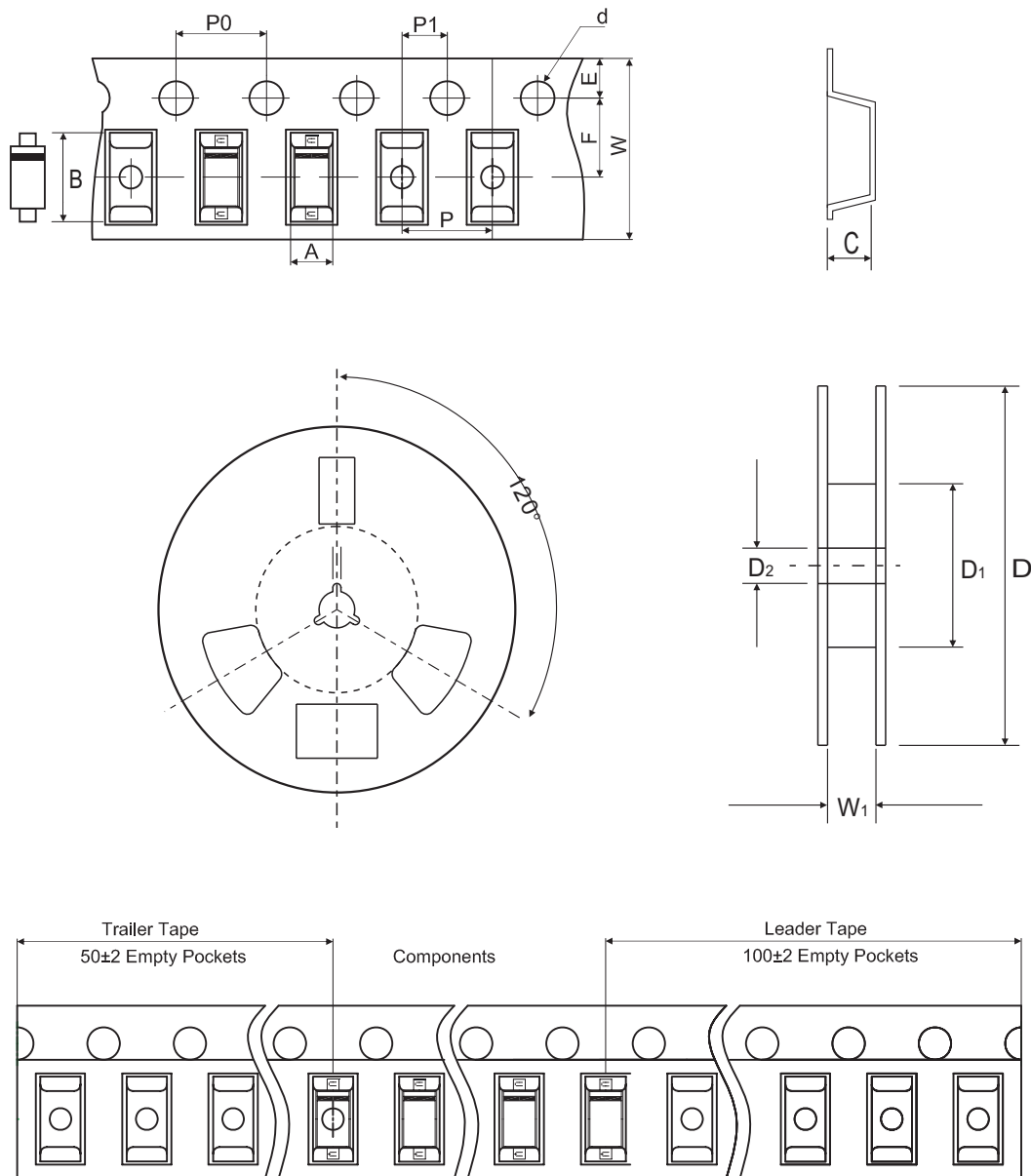


Fig.3 - Typ. Junction Capacitance vs. Reverse Voltage



Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.94 ± 0.10	1.57 ± 0.10	1.55 ± 0.05	178 ± 1.00	54.0 ± 0.50	13.0 ± 0.50
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOD-123	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	$8.00 \pm 0.20/-0.10$	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.002	$0.315 \pm 0.008/-0.004$	0.374 ± 0.039

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

REV: A

Marking Code

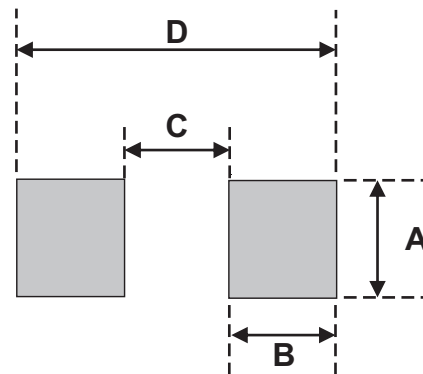
Part Number	Marking Code
ACDBW0540-HF	SF



xx = Product type marking code

Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.22	0.048
B	0.91	0.036
C	2.36	0.093
D	4.19	0.165



Note:

1. The pad layout is for reference purposes only.

Standard Packaging

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