

SD103AW-P2-HF Thru. SD103CW-P2-HF

RoHS Device
Halogen Free



Features

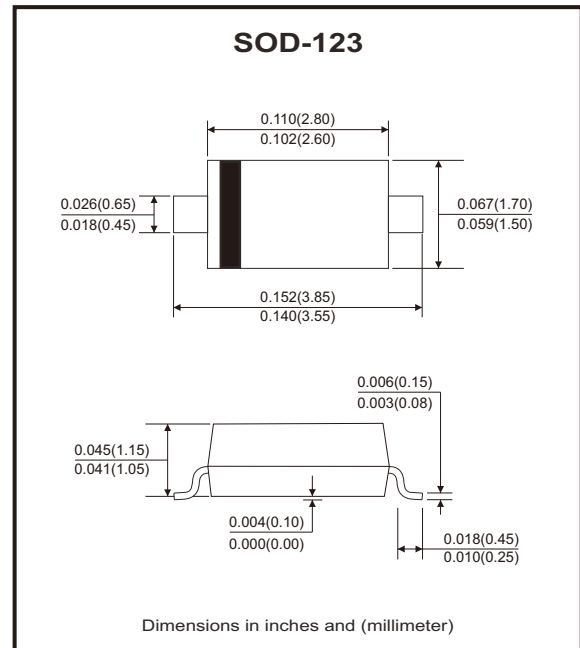
- Low forward voltage schottky rectifier.
- Low power loss for high efficiency.

Mechanical data

- Case: SOD-123, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram

Cathode  Anode



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

Parameter	Symbol	SD103AW-P2-HF	SD103BW-P2-HF	SD103CW-P2-HF	Unit
Non-repetitive peak reverse voltage	V_{RM}	40	30	20	V
Repetitive peak reverse voltage	V_{RRM}	40	30	20	
RMS reverse voltage	V_{RMS}	28	21	14	
Average rectified output current	I_O	350			mA
Non-repetitive peak forward surge current @ 8.3ms single half sine-wave	I_{FSM}	2			A
Power dissipation	P_D	400			mW
Junction temperature	T_J	125			°C
Storage temperature range	T_{STG}	-55 to +125			°C

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 20\text{mA}$			0.37	V
		$I_F = 200\text{mA}$			0.6	
Reverse current	I_R	$V_R = 30\text{V}$			5	μA
		$V_R = 20\text{V}$			5	
		$V_R = 10\text{V}$			5	
Junction capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$			50	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 200\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$			10	ns

Typical Rating and Characteristic Curves (SD103xW-P2-HF Series)

Fig.1 - Forward Characteristics

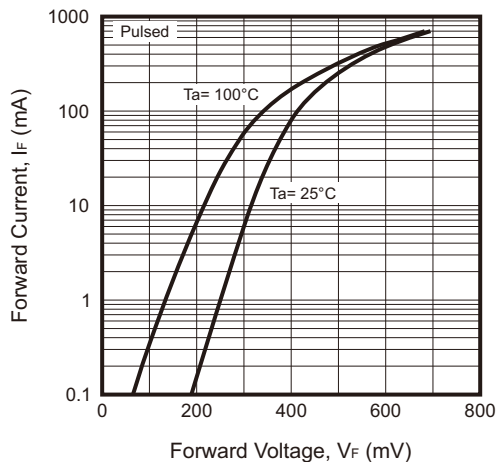


Fig.2 - Reverse Characteristics

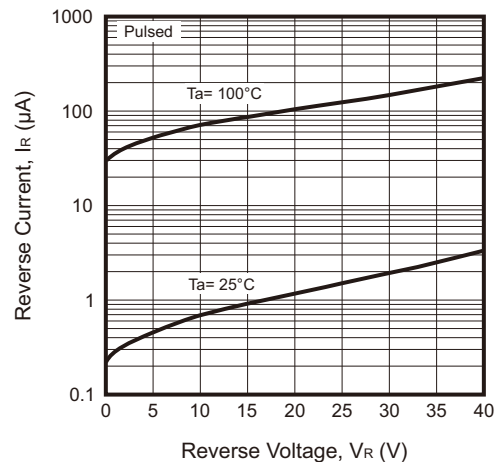


Fig.3 - Capacitance Characteristics

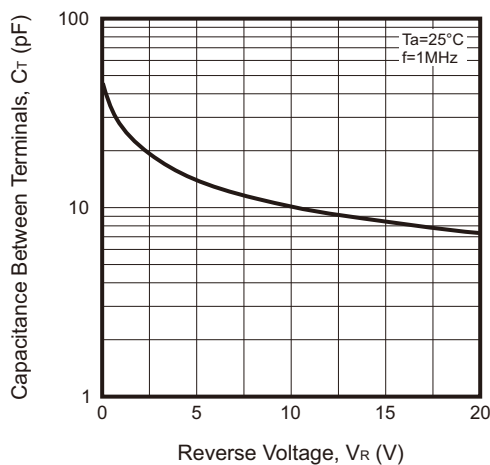
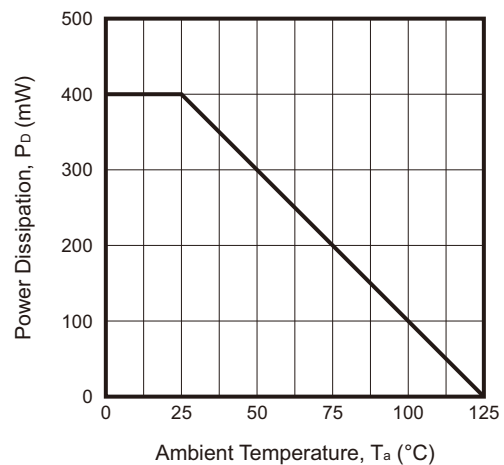
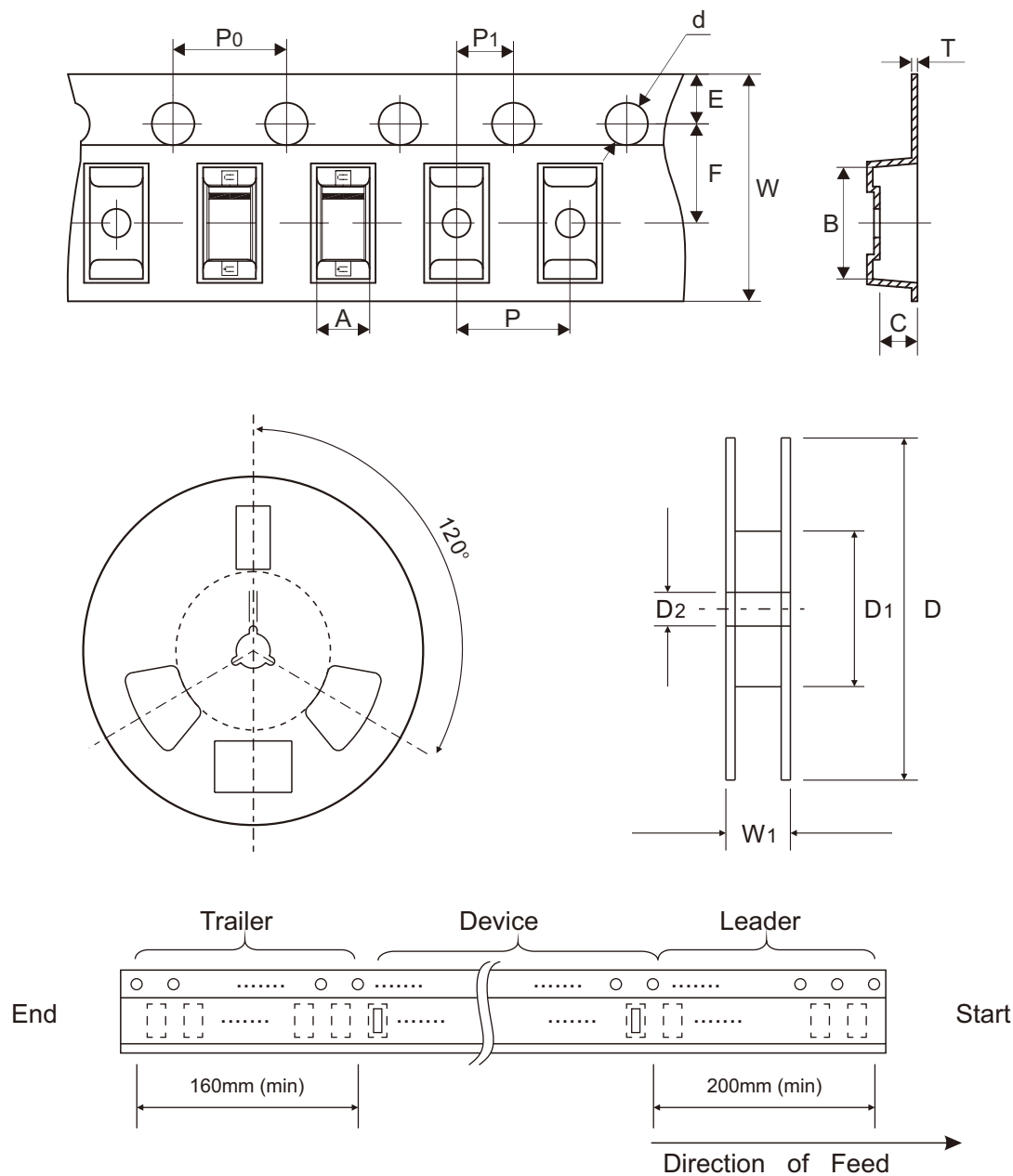


Fig.4 - Power Derating Curve



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	178.00 ± 2.00	50.00 ± 0.50	13.00 ± 0.25
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.002	7.008 ± 0.079	1.969 ± 0.020	0.512 ± 0.010

SOD-123	SYMBOL	E	F	P	P1	P0	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.20 ± 0.02	8.00 + 0.30 - 0.10	11.50 ± 1.50
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.157 ± 0.004	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.453 ± 0.059

Marking Code

Part Number	Marking Code
SD103AW-P2-HF	S4
SD103BW-P2-HF	S5
SD103CW-P2-HF	S6

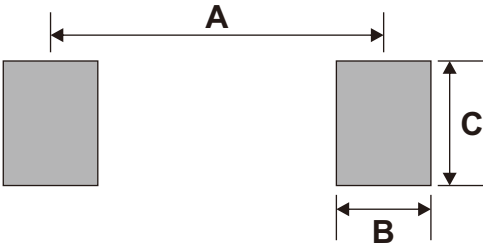


■ = Cathode band

XX = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	3.24	0.128
B	0.80	0.031
C	1.00	0.039



Standard Packaging

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