

CDBW120-HF Thru. CDBW140-HF

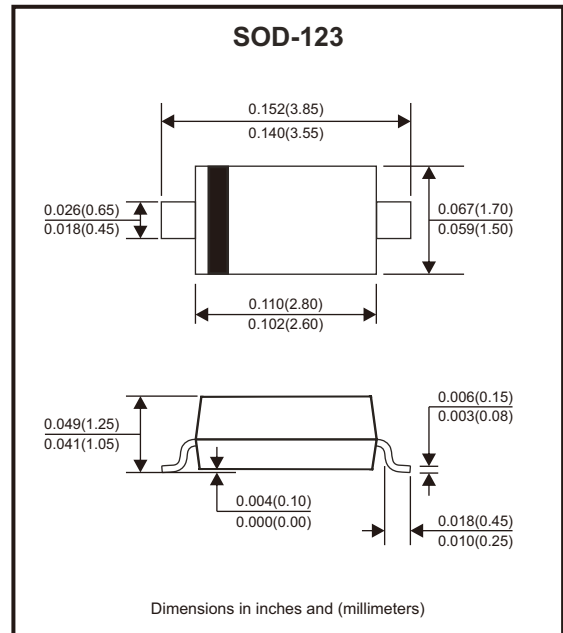
Forward current: 1.0A**Reverse voltage: 20 to 40V****RoHS Device****Halogen Free**

Features

- High current capability.
- Low forward voltage drop.

Mechanical Data

- Case: SOD-123, molded plastic.
- Polarity: Color band denotes cathode end.
- Epoxy UL: 94V-0.
- Mounting position: Any.



Circuit Diagram



Maximum Ratings

 (at Ta=25°C, unless otherwise noted)

Parameter	Symbol	CDBW120-HF	CDBW130-HF	CDBW140-HF	Unit
Max. repetitive peak reverse voltage	V _{RRM}	20	30	40	V
Max. RMS voltage	V _{RMS}	14	21	28	V
Max. DC blocking voltage	V _{DC}	20	30	40	V
Max. average forward rectified current	I _{FM}	1			A
Peak forward surge current 8.3ms single half sine-wave	I _{FSM}	9			A
Typical thermal resistance	R _{θJA}	250			°C/W
Power dissipation	P _D	500			mW
Storage temperature range	T _{STG}	-55 ~ +150			°C

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

Parameter	Conditions	Symbol	CDBW120-HF	CDBW130-HF	CDBW140-HF	Unit
Maximum forward voltage	$I_F = 1.0A$ $I_F = 3.0A$	V_F	0.450 0.750	0.550 0.875	0.600 0.900	V
Maximum reverse breakdown voltage	$I_R = 1mA$	V_R	20	30	40	V
Maximum reverse current	$V_R = 20V$ CDBW120 $V_R = 30V$ CDBW130 $V_R = 40V$ CDBW140	I_R	1			mA
Type junction capacitance	$V_R = 4V, f = 1MHz$	C_j	120			pF

Rating and Characteristic Curves (CDBW120-HF Thru. CDBW140-HF)

Fig.1 - Forward Characteristics

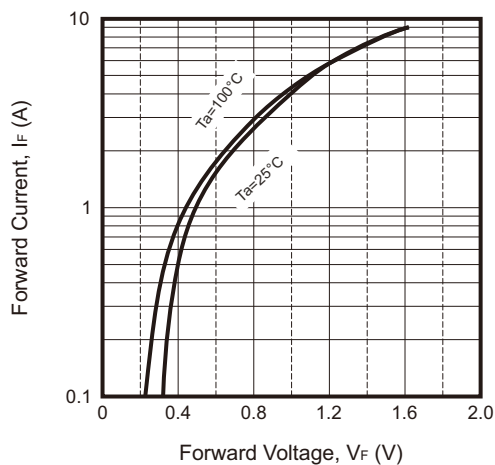


Fig.2 - Reverse Characteristics

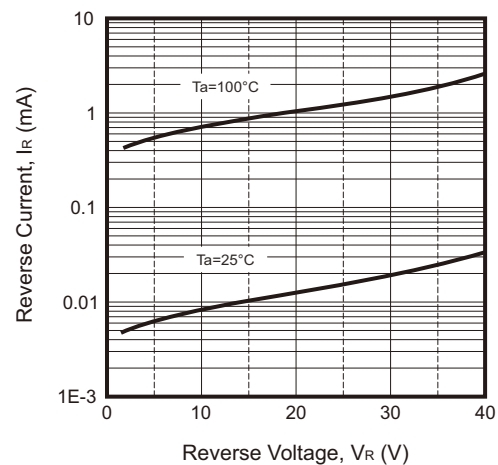


Fig.3 - Capacitance Characteristics

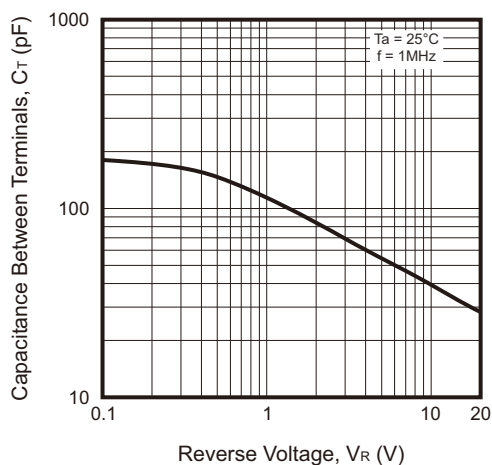
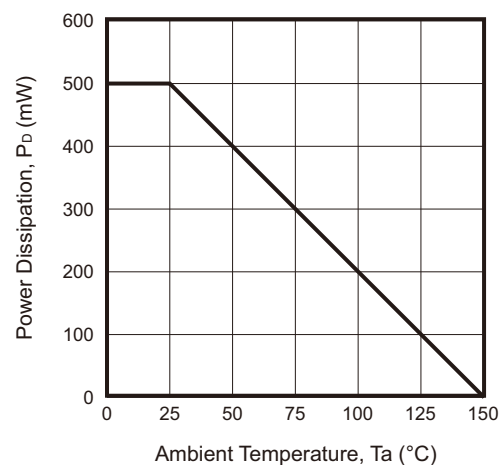
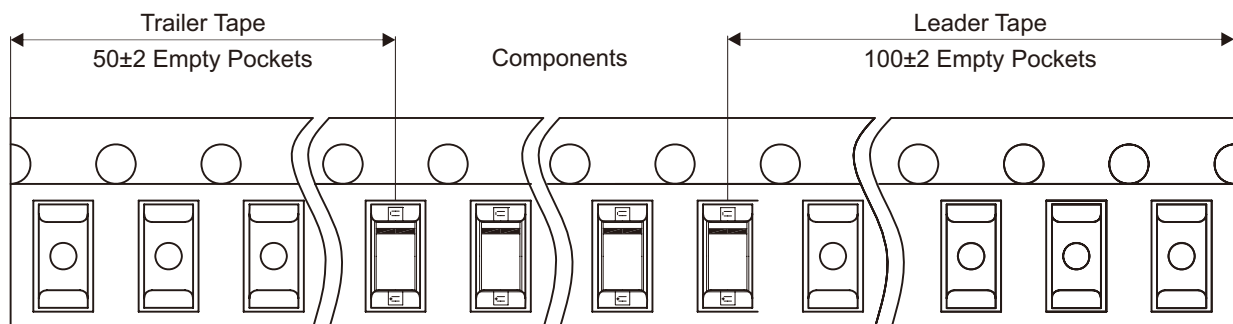
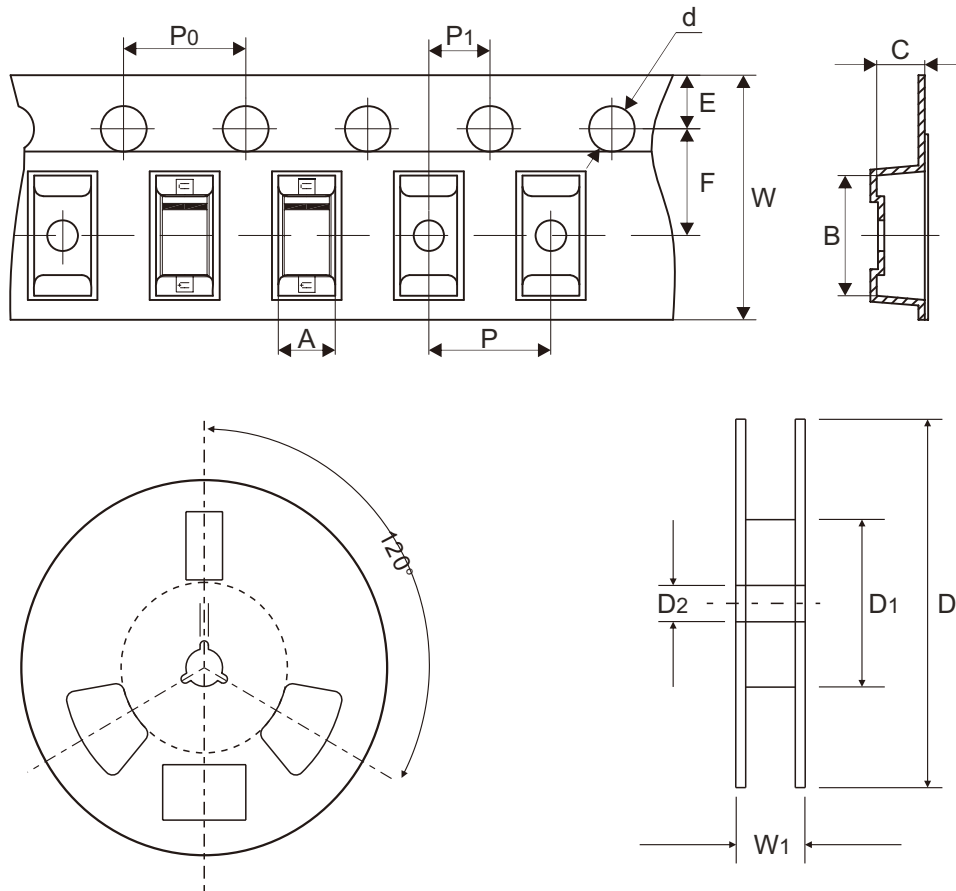


Fig.4 - Power Derating Curve



Reel Taping Specification

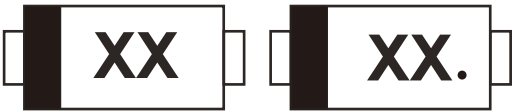


SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.05	3.94 ± 0.05	1.57 ± 0.05	1.55 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.073 ± 0.002	0.155 ± 0.002	0.062 ± 0.002	0.061 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-123	SYMBOL	E	F	P	P1	P0	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	$8.00 + 0.06 - 0.10$	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	$0.315 + 0.002 - 0.004$	0.484 ± 0.039

Marking Code

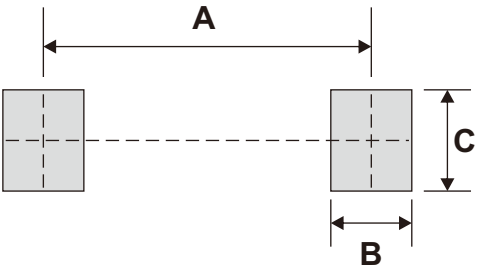
Part Number	Marking Code
CDBW120-HF	SJ
CDBW130-HF	SK
CDBW140-HF	SL



 = Cathode band
xx = Product type marking code
Solid dot = Control 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



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