

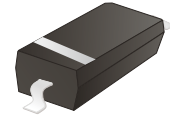
CDSW4148-HF

Reverse Voltage: 100 V

Forward Current: 150mA

RoHS Device

Halogen Free

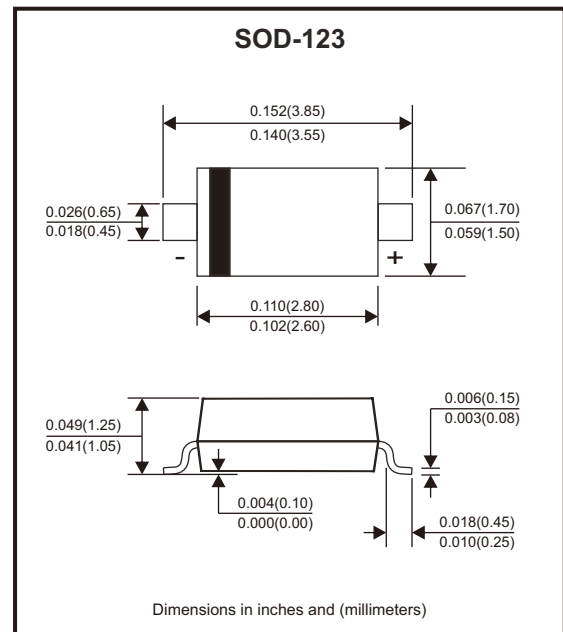


Features

- Fast switching speed.
- High speed.
- High conductance.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- Flat Package SOD-123 in stead mini-MELF package.

Mechanical data

- Case: SOD-123, Molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Weight: 0.0097 grams(approx.).



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive peak reverse voltage	VRRM	100	V
Working peak reverse voltage	VRWM		
DC blocking voltage	VR		
RMS reverse voltage	VR(RMS)	71	V
Average rectified output current	Io	150	mA
Non-Repetitive peak forward surge current @t=1μs	IFSM	2	A
Power dissipation	PD	350	mW
Thermal resistance from junction to ambient	RθJA	250	°C/W
Junction temperature range	Tj	-40~+150	°C
Storage temperature range	TSTG	-55~+150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	If = 1mA	V _{F1}			0.715	V
	If = 10mA	V _{F2}			0.855	V
	If = 50mA	V _{F3}			1.0	V
	If = 150mA	V _{F4}			1.25	V
Reverse current	V _R = 20V	I _{R1}			25	nA
	V _R = 75V	I _{R2}			1	μA
Capacitance between terminals	f = 1MHz and V _R = 0V	C _J			2	pF
Reverse recovery time	If = I _R = 10mA, R _L = 100Ω, I _{rr} = 0.1 X I _R	T _{RR}			4	nS

Typical Characteristics (CDSW4148-HF)

Fig.1 - Forward Characteristics

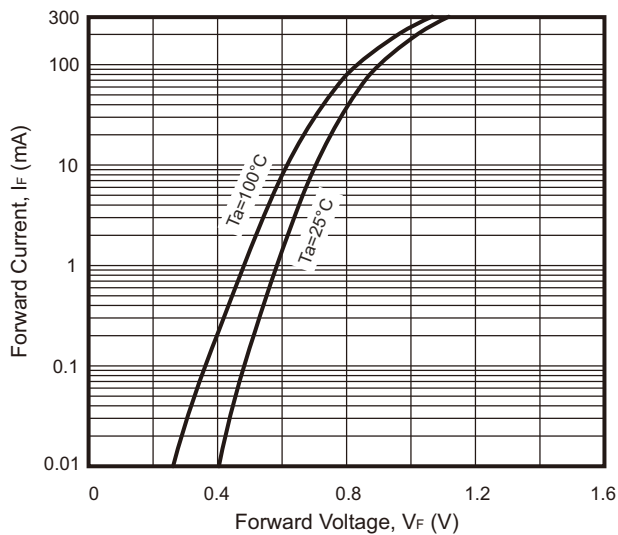


Fig.2 - Reverse Characteristics

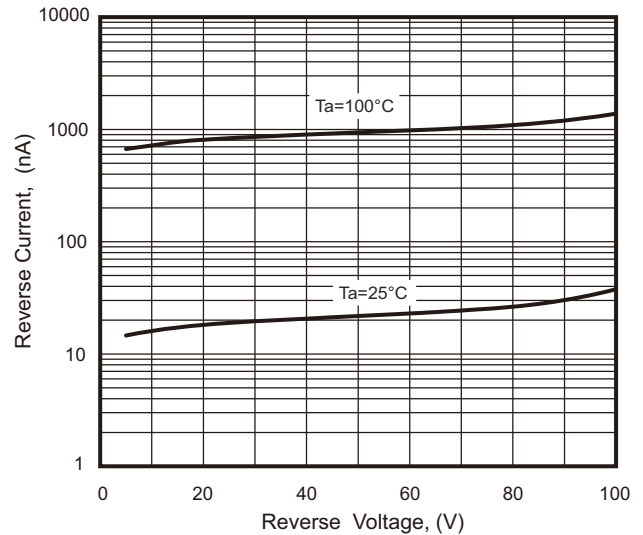


Fig.3 - Capacitance Characteristics

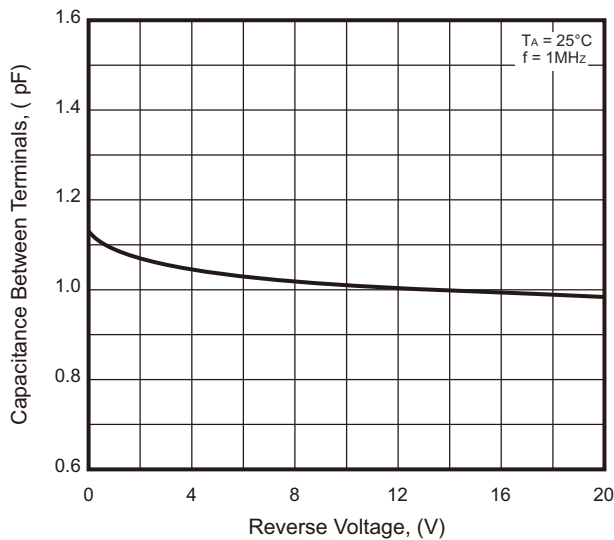
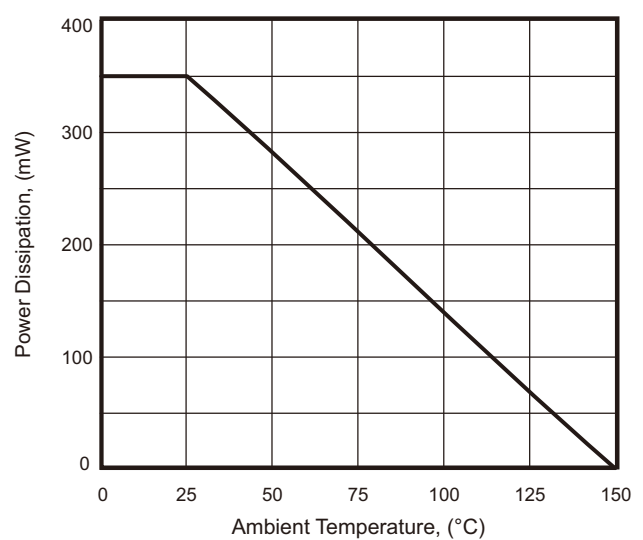
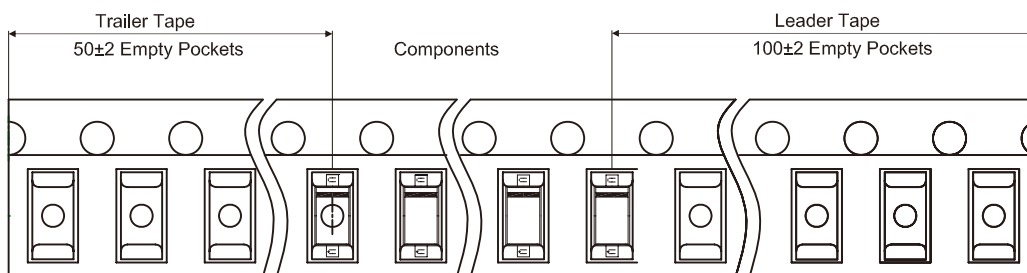
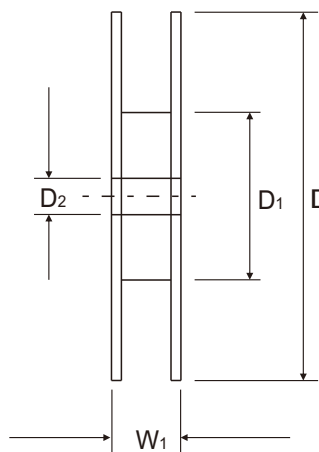
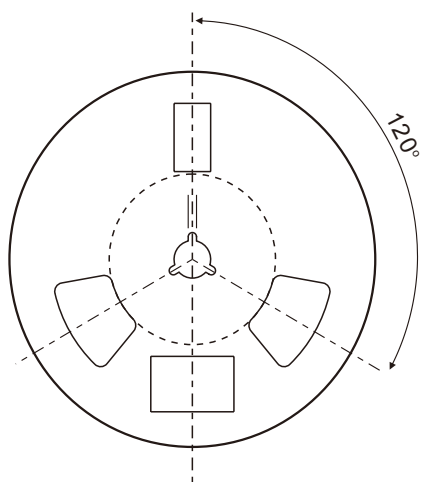
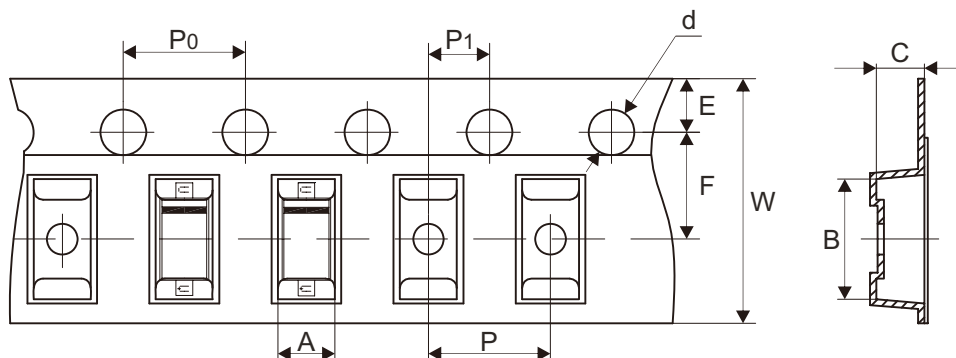


Fig.4 - Power Derating Curve



Reel Taping Specification

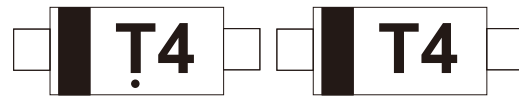


SOD-123	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.85 ± 0.05	3.94 ± 0.05	1.57 ± 0.05	1.55 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.073 ± 0.002	0.155 ± 0.002	0.062 ± 0.002	0.061 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-123	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 / - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

Marking Code

Part Number	Marking Code
CDSW4148-HF	T4

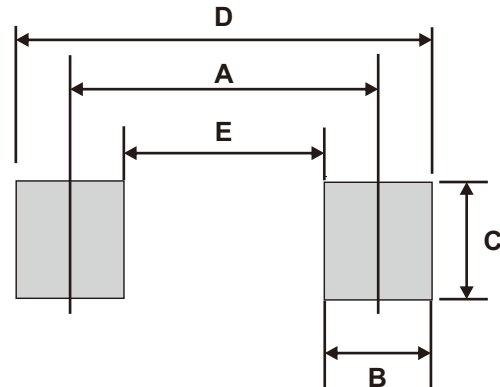


■ = Cathode band

● = 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
D	4.04	0.159
E	2.44	0.096



Standard Packaging

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