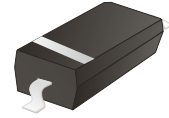


CDSW4448-HF

Reverse Voltage: 75 V
Power Dissipation: 500 mW
RoHS Device
Halogen Free

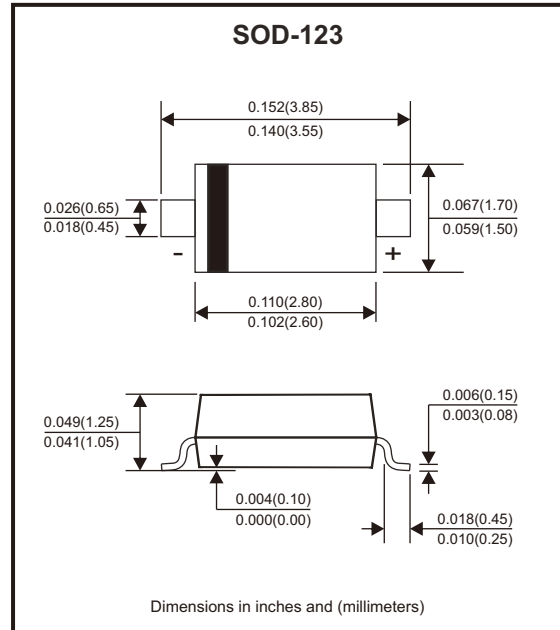


Features

- Small package.
- Low reverse current.
- Fast switching speed.
- Surface mount package ideally suited for automatic insertion.

Mechanical data

- Case: SOD-123, molded plastic.
- Polarity: indicated by cathode band.
- Mounting position: Any.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive peak reverse voltage	V_{RRM}	75	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
RMS reverse voltage	$V_{R(RMS)}$	53	V
Forward continuous current	I_{FM}	500	mA
Average rectified output current	I_o	250	mA
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	2.0	A
Power dissipation	P_D	500	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	250	°C/W
Operation junction and storage temperature range	T_J, T_{STG}	-55 ~ +150	°C

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

Parameter	Conditions	Symbol	Min	Max	Unit
Reverse breakdown voltage	$I_R = 10\mu A$	$V_{(BR)R}$	75		V
Forward voltage	$I_F = 5mA$	V_F	0.62	0.72	V
	$I_F = 10mA$			0.855	
	$I_F = 100mA$			1.0	
	$I_F = 150mA$			1.25	
Reverse current	$V_R = 75V$	I_R		2.5	μA
	$V_R = 20V$			25	nA
Capacitance between terminals	$V_R = 0V, f = 1MHz$	C_T		4	pF
Reverse recovery time	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	T_{rr}		4	nS

Rating and Characteristic Curves (CDSW4448-HF)

Fig.1 - Forward Characteristics

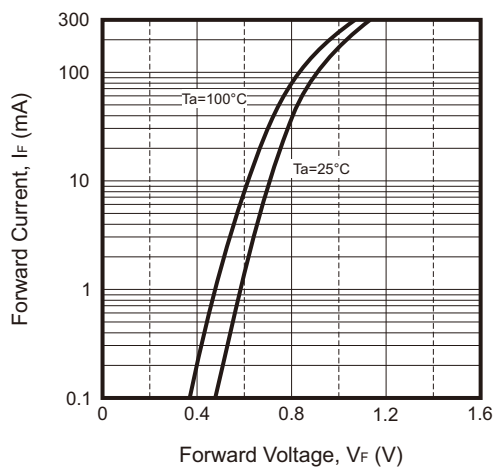


Fig.2 - Reverse Characteristics

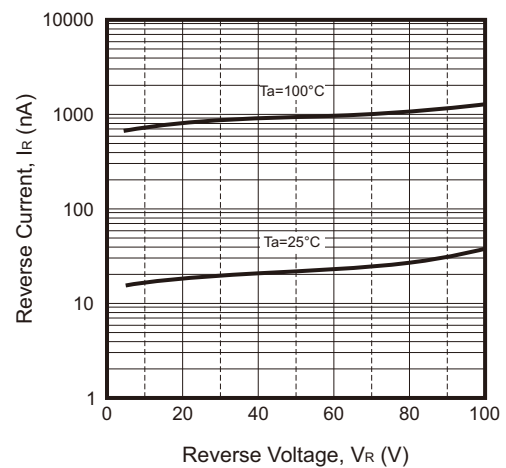


Fig.3 - Capacitance Characteristics

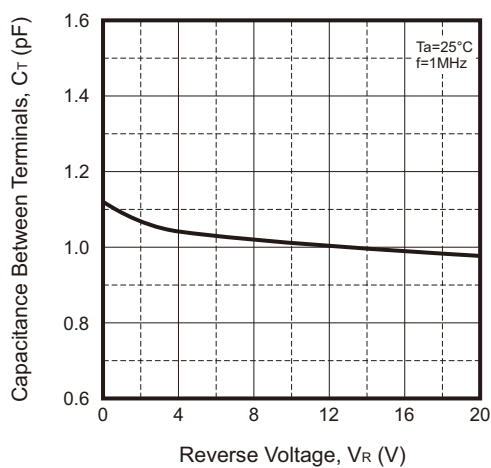
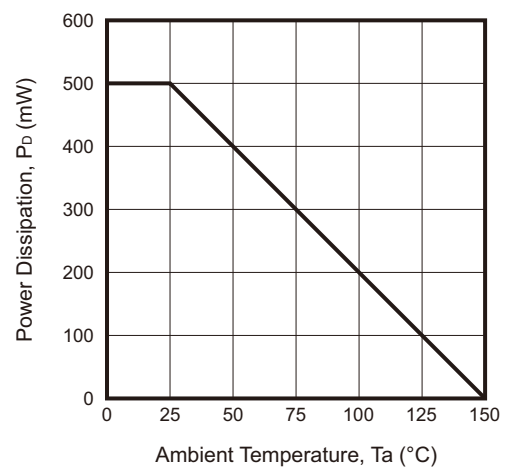


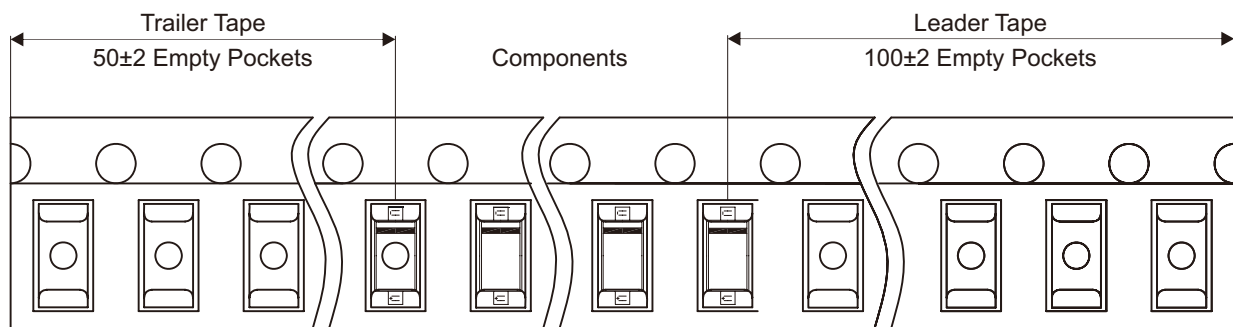
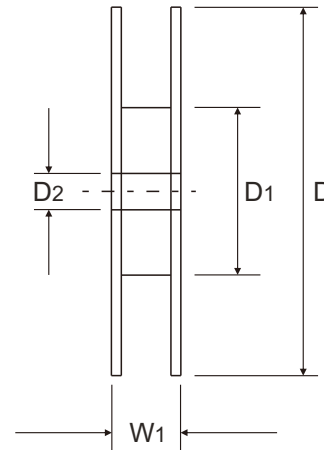
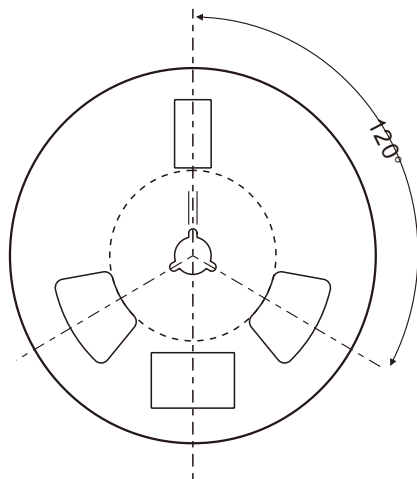
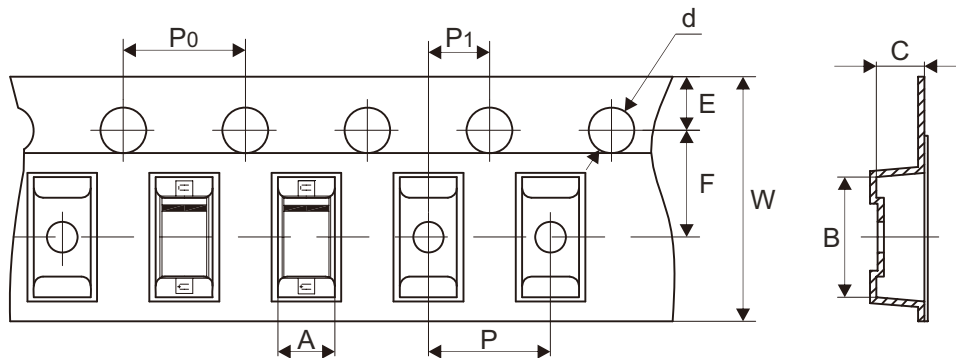
Fig.4 - Power Derating Curve



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

REV:A

Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.95 ± 0.10	1.57 ± 0.10	1.55 ± 0.10	178.00 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.073 ± 0.004	0.156 ± 0.004	0.062 ± 0.004	0.061 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

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

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

Marking Code

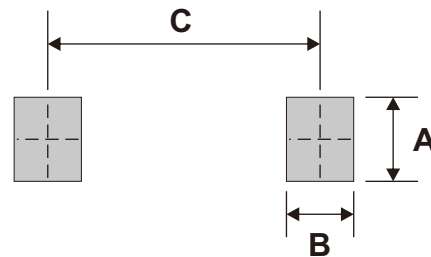
Part Number	Marking Code
CDSW4448-HF	T5



■ = Cathode band
 Solid dot = Control code

Suggested P.C.B. PAD Layout

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



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