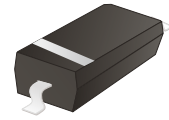


CDSW4448-G

Reverse Voltage: 75 V

Power Dissipation: 500 mW

RoHS Device

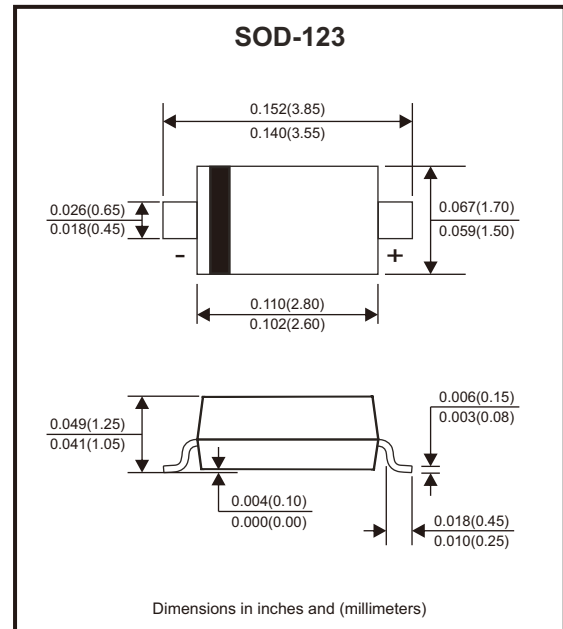


Features

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

Mechanical data

- Case: SOD-123, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: indicated by cathode band.
- Weight: 0.01 grams approx.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive peak reverse voltage	VRRM	75	V
Working peak reverse voltage	VRWM		
DC blocking voltage	VR		
RMS reverse voltage	VR(RMS)	53	V
Average rectified output current	Io	250	mA
Forward continuous current	IFM	500	mA
Non-repetitive peak forward surge current @t=8.3ms	IFSM	2.0	A
Power dissipation	Pd	500	mW
Thermal resistance from junction to ambient	RθJA	250	°C/W
Junction temperature	TJ	150	°C
Storage temperature range	TSTG	-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	$I_F = 5 mA$	V_F	0.62	0.72	V
	$I_F = 10 mA$			0.855	
	$I_F = 100 mA$			1.0	
	$I_F = 150 mA$			1.25	
Reverse current	$V_R = 75 V$	I_R		2.5	μA
	$V_R = 20 V$			25	nA
Capacitance between terminals	$f = 1 MHz, V_R = 0 V$	C_T		4	pF
Reverse recovery time	$I_F = I_R = 10 mA, R_L = 100 \Omega, I_{rr} = 0.1 \times I_R$	T_{rr}		4	nS

Rating and Characteristic Curves (CDSW4448-G)

Fig.1 - Forward Characteristics

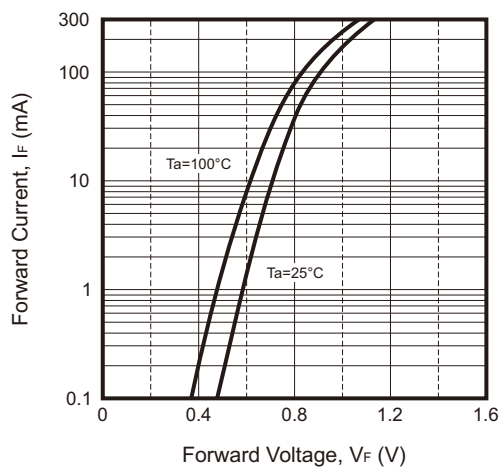


Fig.2 - Reverse Characteristics

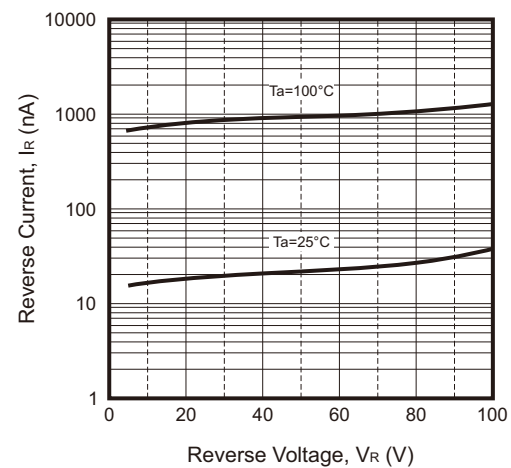


Fig.3 - Capacitance Characteristics

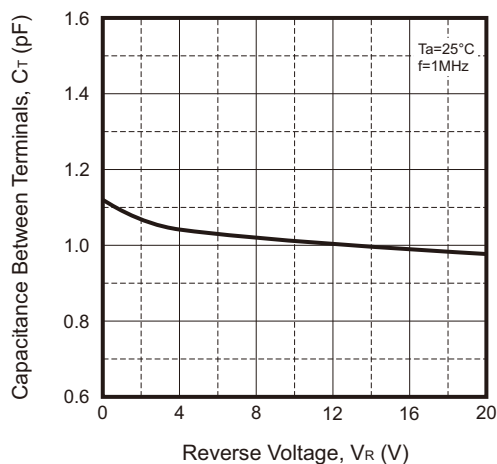
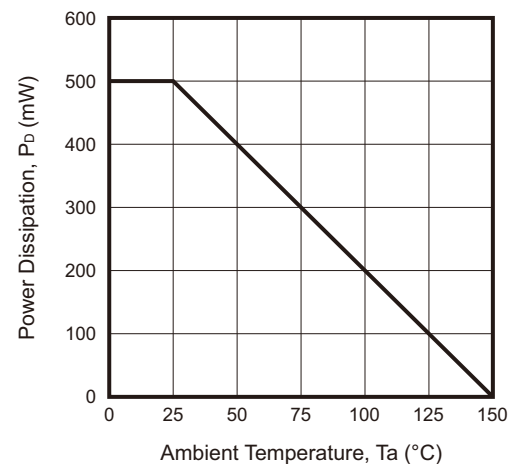
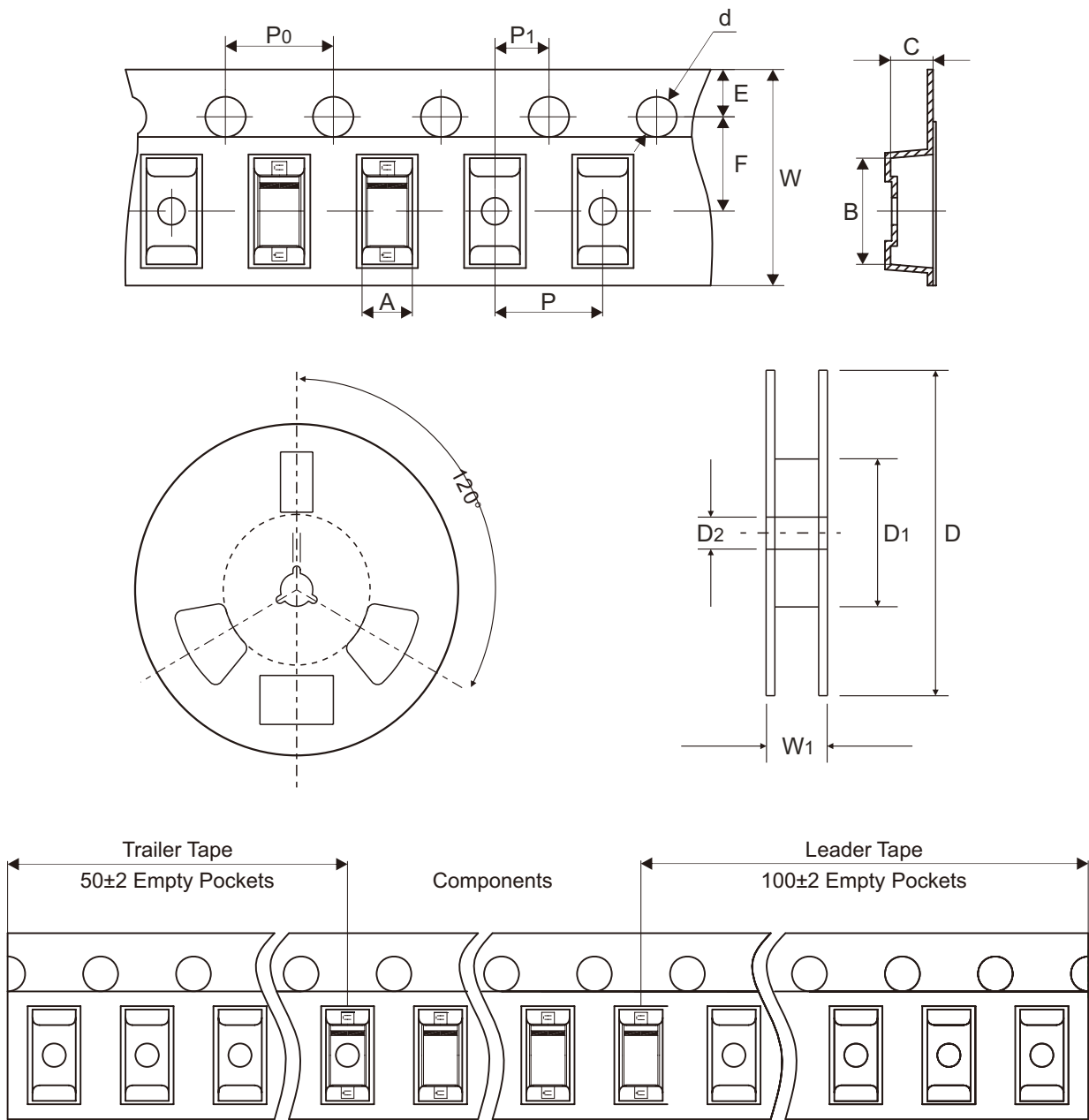


Fig.4 - Power Derating Curve



Reel Taping Specification

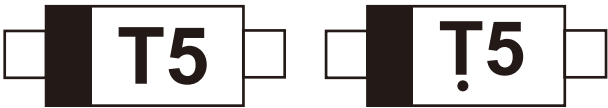


SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.95 ± 0.10	1.57 ± 0.10	1.55 ± 0.10	178.00 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.073 ± 0.004	0.156 ± 0.004	0.062 ± 0.004	0.061 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

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

Marking Code

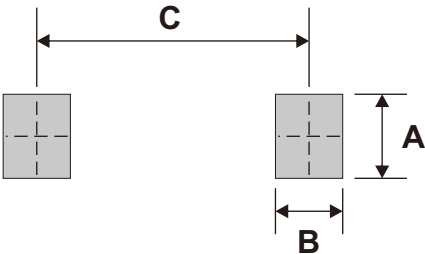
Part Number	Marking Code
CDSW4448-G	T5



■ = 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