

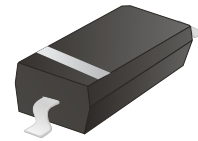
CDSW3004-HF

Reverse Voltage: 300 V

Forward Current: 225mA

RoHS Device

Halogen Free



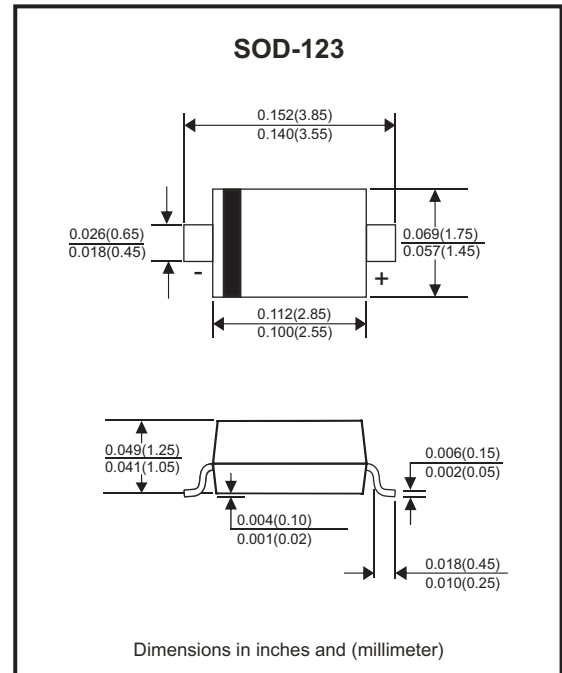
Features

- Low leakage current.
- High reverse breakdown voltage.
- 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.

Circuit diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V _{RRM}	350	V
Working peak reverse voltage @t=1.0μs	V _{RWM}	300	V
DC reverse voltage @t=1.0s	V _R	300	V
RMS reverse voltage	V _{R(RMS)}	212	V
Forward continuous current	I _{FM}	225	mA
Repetitive peak forward current	I _{FRM}	625	mA
Non-Repetitive peak forward surge current @t=1.0μs	I _{FSM}	4.0	A
@t=1.0s		1.0	
Power dissipation	P _D	400	mW
Thermal resistance junction to ambient air	R _{θJA}	312	°C/W
Junction temperature range	T _j	-65~+150	°C
Storage temperature range	T _{STG}	-65~+150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	$I_R = 150 \mu A$	$V_{(BR)R}$	350	-	-	V
Forward voltage	$I_F = 20mA$	V_{F1}	-	0.78	0.87	V
	$I_F = 100mA$	V_{F2}	-	0.93	1.0	V
	$I_F = 200mA$	V_{F3}	-	1.03	1.25	V
Reverse current	$V_R = 240 V, T_J = 25^\circ C$	I_{R1}	-	30	100	nA
	$V_R = 240 V, T_J = 150^\circ C$	I_{R2}	-	35	100	μA
Total Capacitance	$f = 1 MHz, V_R = 0 V$	C_T	-	1.0	5.0	pF
Reverse recovery time	$I_F = I_R = 30 mA, R_L = 100 \Omega, I_{rr} = 0.1 \times I_R$	t_{rr}	-	-	50	nS

Typical Characteristics (CDSW3004-HF)

Fig.1 - Power Derating Curve

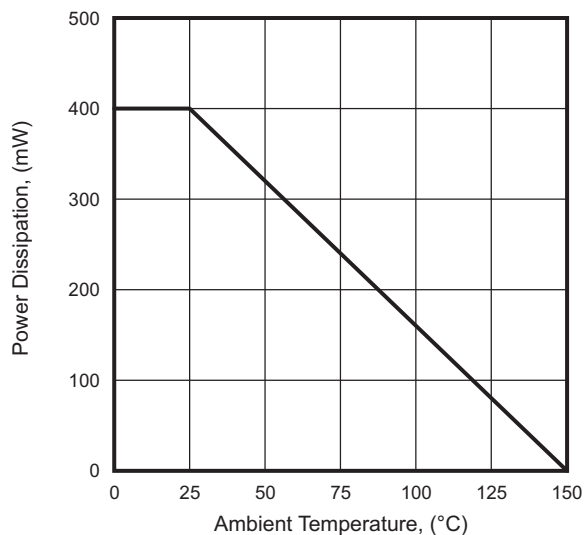


Fig.2 - Forward Characteristics

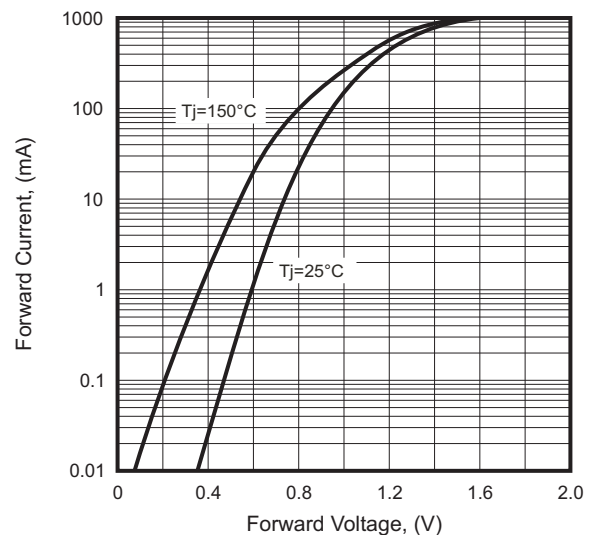


Fig.3 - Typical Reverse Characteristics

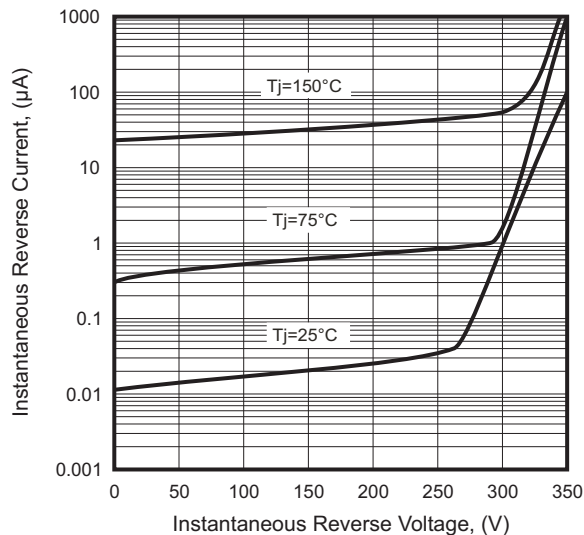
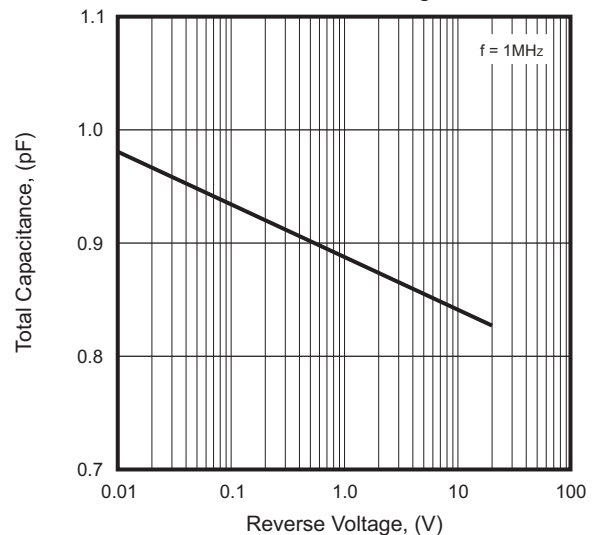
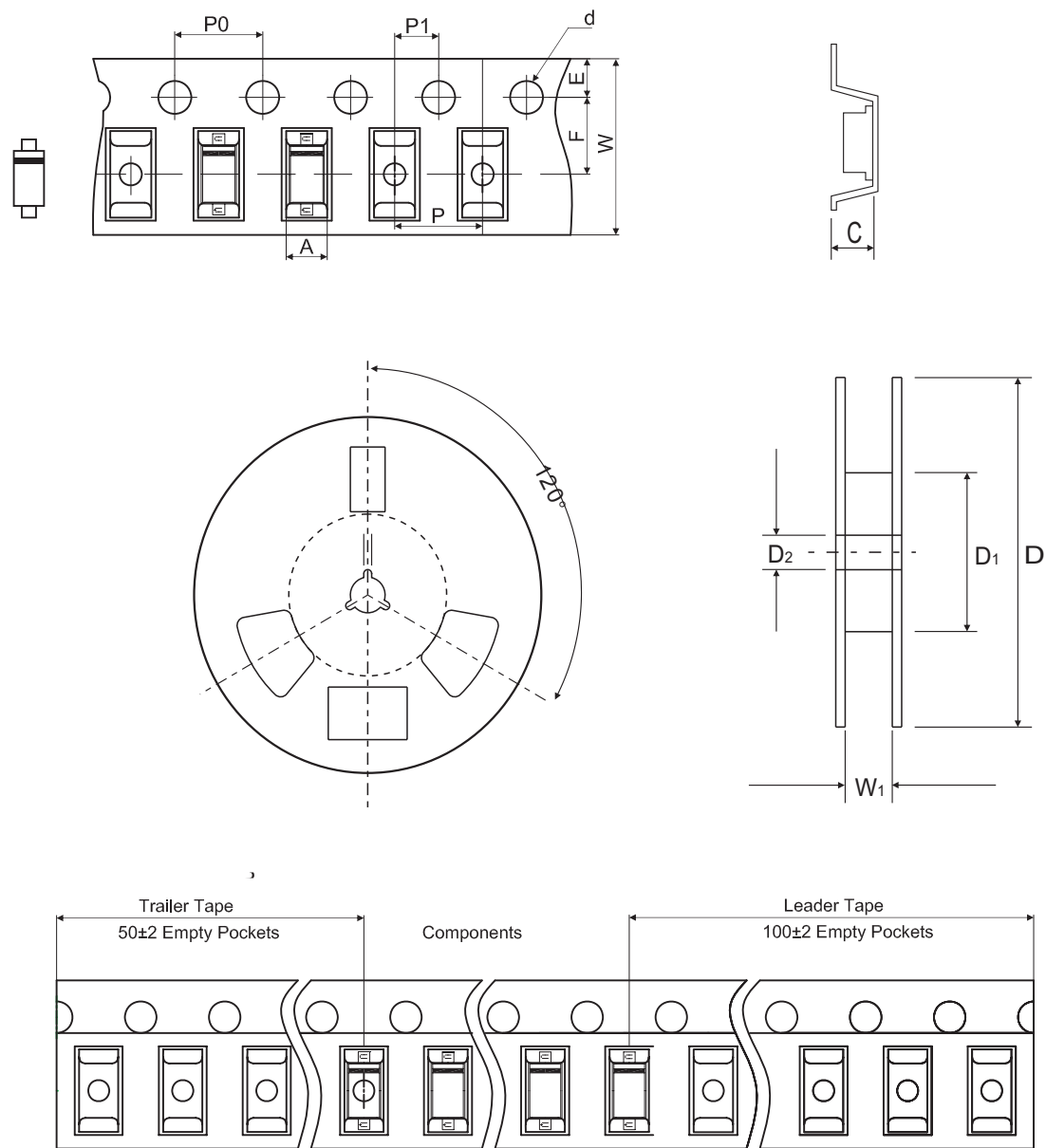


Fig.4 - Typical Total Capacitance vs. Reverse Voltage



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

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 ± 1.00	54.0 ± 0.50	13.0 ± 0.50
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOD-123	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00±0.20/-0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138±0.002	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.002	0.315±0.008/-0.004	0.374 ± 0.039

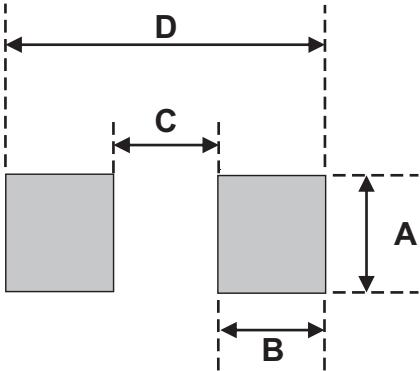
Marking Code

Part Number	Marking Code
CDSW3004-HF	4P



Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.22	0.048
B	0.91	0.036
C	2.36	0.093
D	4.19	0.165



Standard Packaging

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