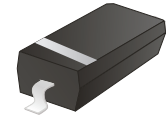


CDSW19-G/20-G/21-G

High Speed
RoHS Device

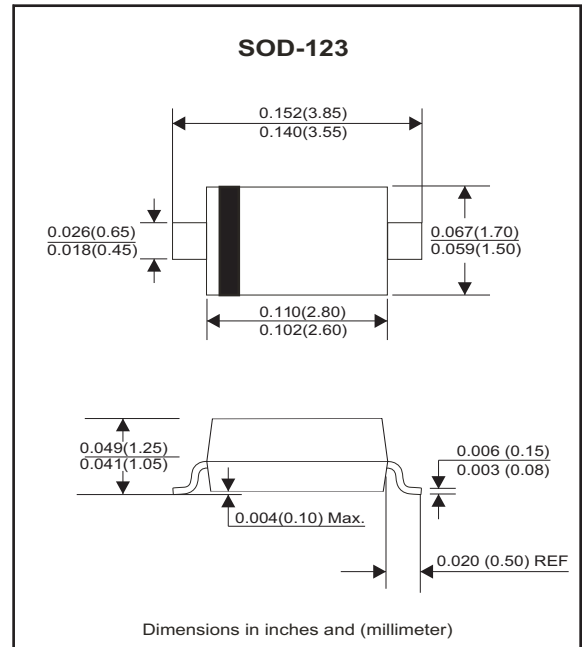


Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications

Mechanical data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.01 gram(approx.).



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

Parameter	Symbol	CDSW19-G	CDSW20-G	CDSW21-G	Unit
Non-Repetitive peak reverse voltage	V_{RM}	120	200	250	V
Peak repetitive peak reverse voltage	V_{RRM}	100	150	200	V
Working peak reverse voltage	V_{RWM}				
DC blocking voltage	V_R				
RMS reverse voltage	$V_{R(RMS)}$	71	106	141	V
Forward continuous current	I_{FM}	400			mA
Average rectified output current	I_o	200			mA
Peak forward surge current	I_{FSM}		2.5 0.5		A
@1.0mS					
@1.0S					
Repetitive peak forward current	I_{FRM}	625			mA
Power dissipation	P_D	250			mW
Thermal Resistance (Junction to ambient)	$R_{\theta JA}$	500			°C/W
Storage temperature	T_{STG}	-65 ~ +150			°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 0.1\text{ A}$ $I_F = 0.2\text{ A}$	V_F			1.0 1.25	V
Reverse current	CDSW19-G $V_R=100\text{ V}$ CDSW20-G $V_R=150\text{ V}$ CDSW21-G $V_R=200\text{ V}$	I_R			0.1 0.1 0.1	uA
Capacitance between terminals	$f = 1\text{ MHz}$, $V_R=0\text{ V}$	C_T			5	pF
Reverse recovery time	$I_F = I_R=30\text{ mA}$, $R_L = 100\ \Omega$, $I_{rr} = 0.1 \times I_R$	t_{RR}			50	nS

Typical Characteristics (CDSW19-G/20-G/21-G)

Fig.1 - Forward Characteristics

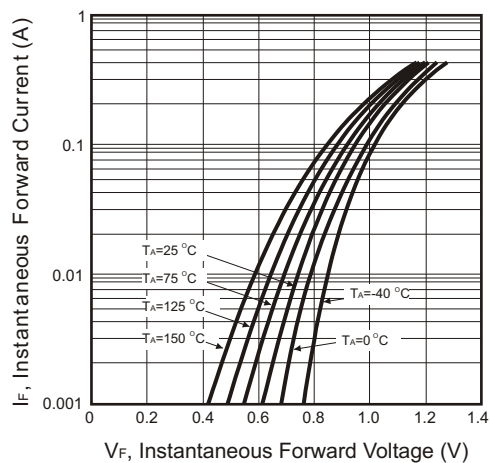


Fig.2 - Typical Reverse Characteristics

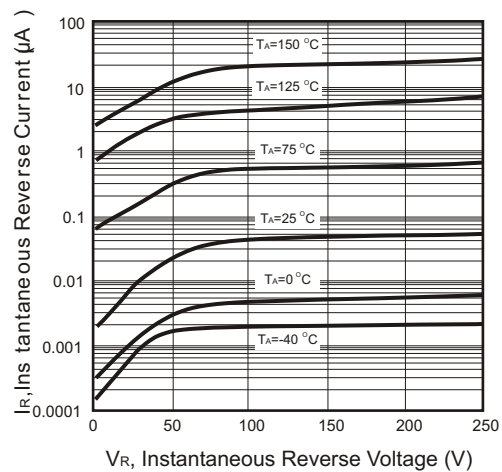


Fig.3 - Power Derating Curve

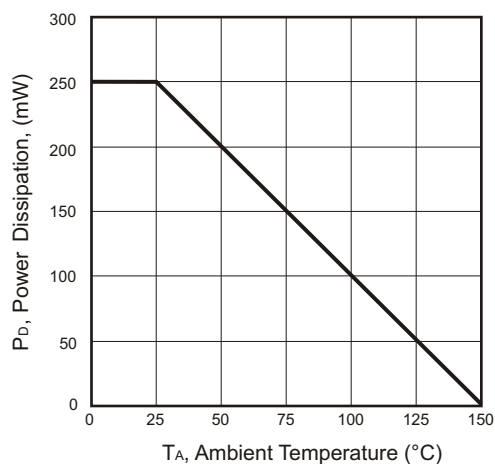
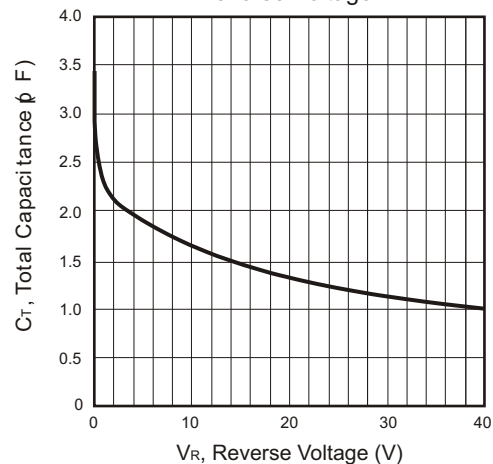
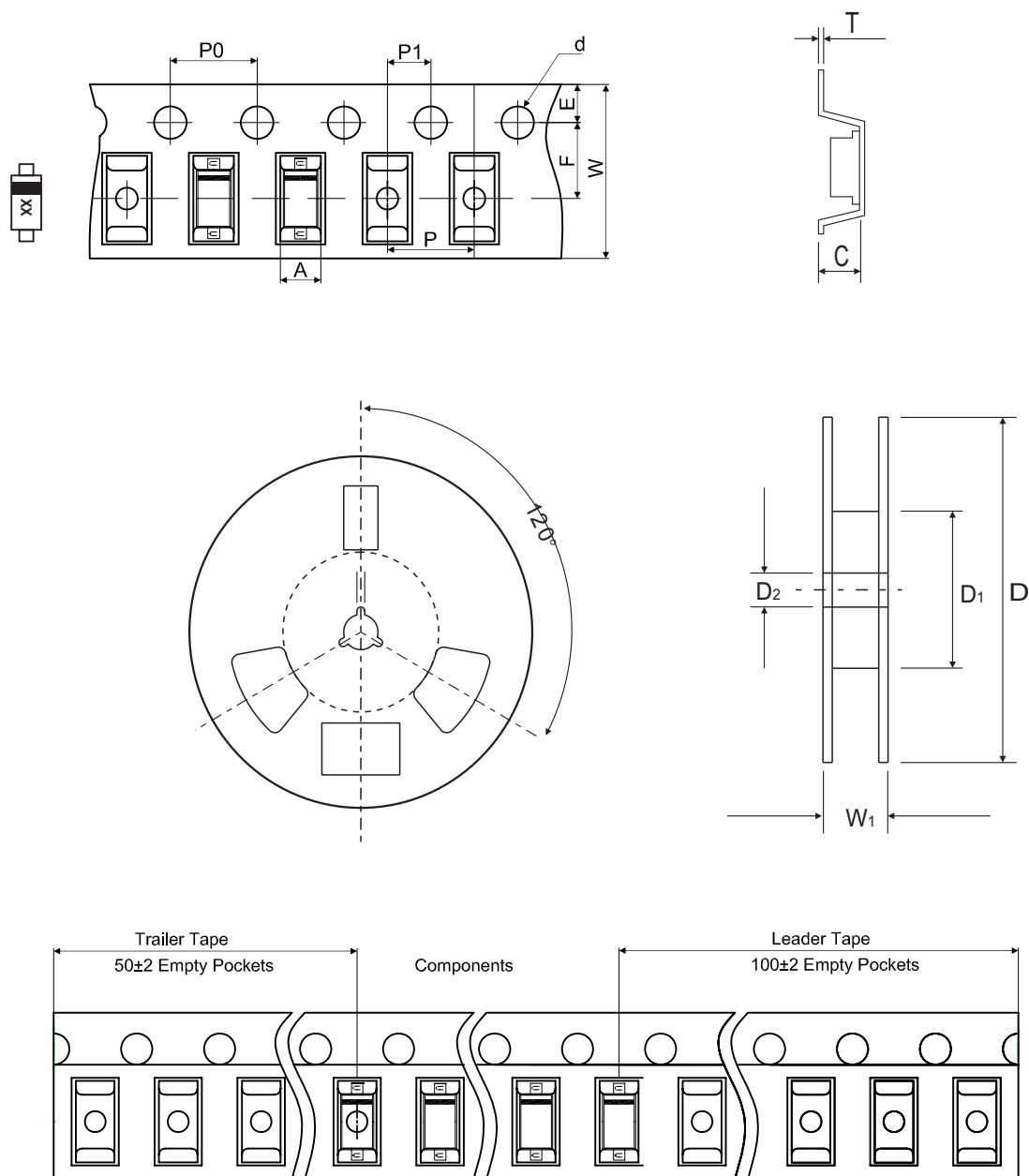


Fig.4 - Typical Capacitance V.S. Reverse Voltage



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 ± 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 ± 1.0
	(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

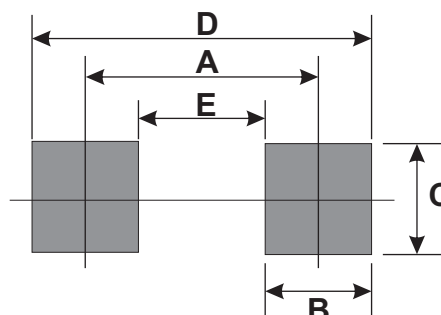
Marking Code

Part Number	Marking Code
CDSW19-G	A8
CDSW20-G	T2
CDSW21-G	T3



Suggested 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