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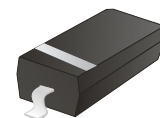
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## SMD Switching Diode



# CDSW19-G/20-G/21-G

High Speed  
RoHS Device

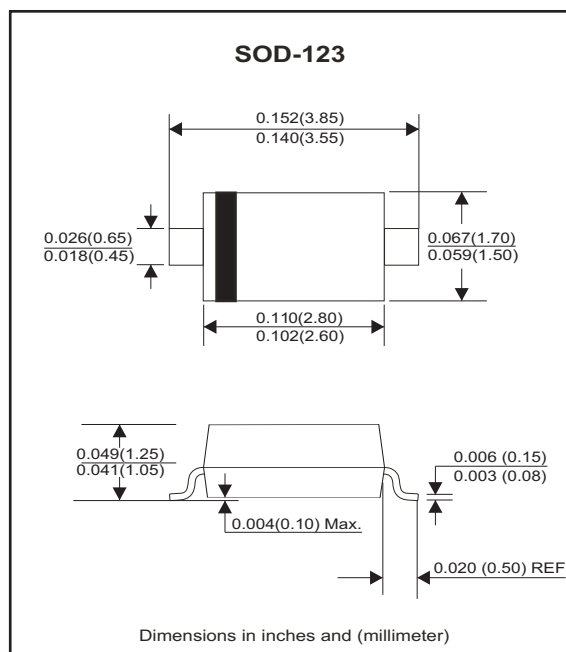


### Features

- 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 <sub>RM</sub>	120	200	250	V
Peak repetitive peak reverse voltage Working peak reverse voltage DC blocking voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	100	150	200	V
RMS reverse voltage	V <sub>R(RMS)</sub>	71	106	141	V
Forward continuous current	I <sub>FM</sub>	400			mA
Average rectified output current	I <sub>o</sub>	200			mA
Peak forward surge current	I <sub>FSM</sub>	2.5 0.5			A
@1.0mS @1.0S					
Repetitive peak forward current	I <sub>FRM</sub>	625			mA
Power dissipation	P <sub>D</sub>	250			mW
Thermal Resistance (Junction to ambient)	R <sub>θJA</sub>	500			°C/W
Storage temperature	T <sub>STG</sub>	-65 ~ +150			°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> = 0.1 A I <sub>F</sub> = 0.2 A	V <sub>F</sub>			1.0 1.25	V
Reverse current	CDSW19-G V <sub>R</sub> =100 V CDSW20-G V <sub>R</sub> =150 V CDSW21-G V <sub>R</sub> =200 V	I <sub>R</sub>			0.1 0.1 0.1	uA
Capacitance between terminals	f = 1 MHz, V <sub>R</sub> =0V	C <sub>T</sub>			5	pF
Reverse recovery time	I <sub>F</sub> = I <sub>R</sub> =30 mA, R <sub>L</sub> =100 Ω, I <sub>rr</sub> = 0.1 X I <sub>R</sub>	t <sub>RR</sub>			50	nS

# SMD Switching Diode



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

Fig.1 - Forward Characteristics

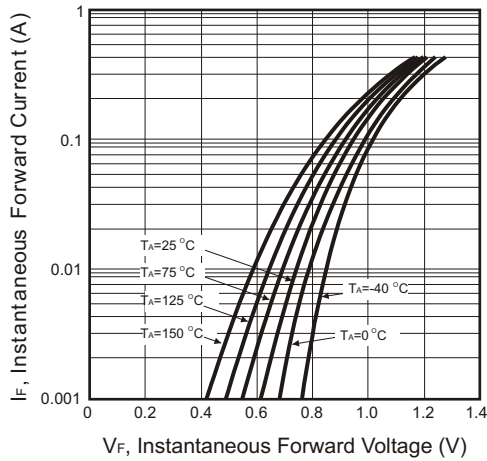


Fig.2 - Typical Reverse Characteristics

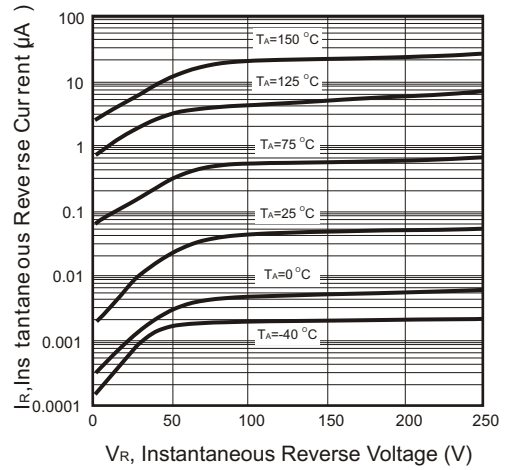


Fig.3 - Power Derating Curve

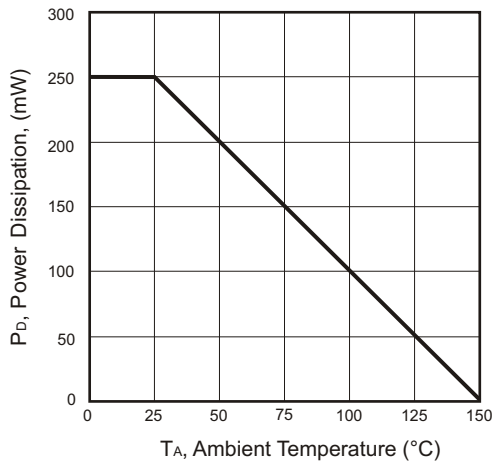
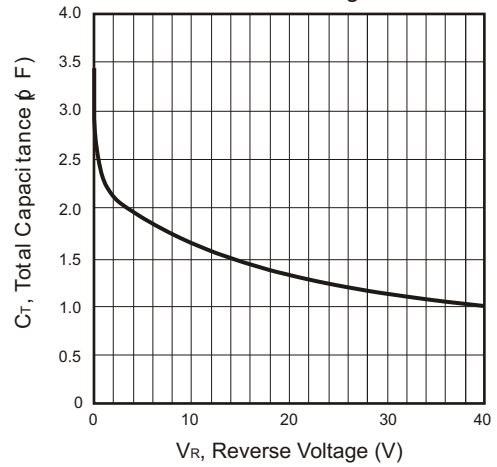


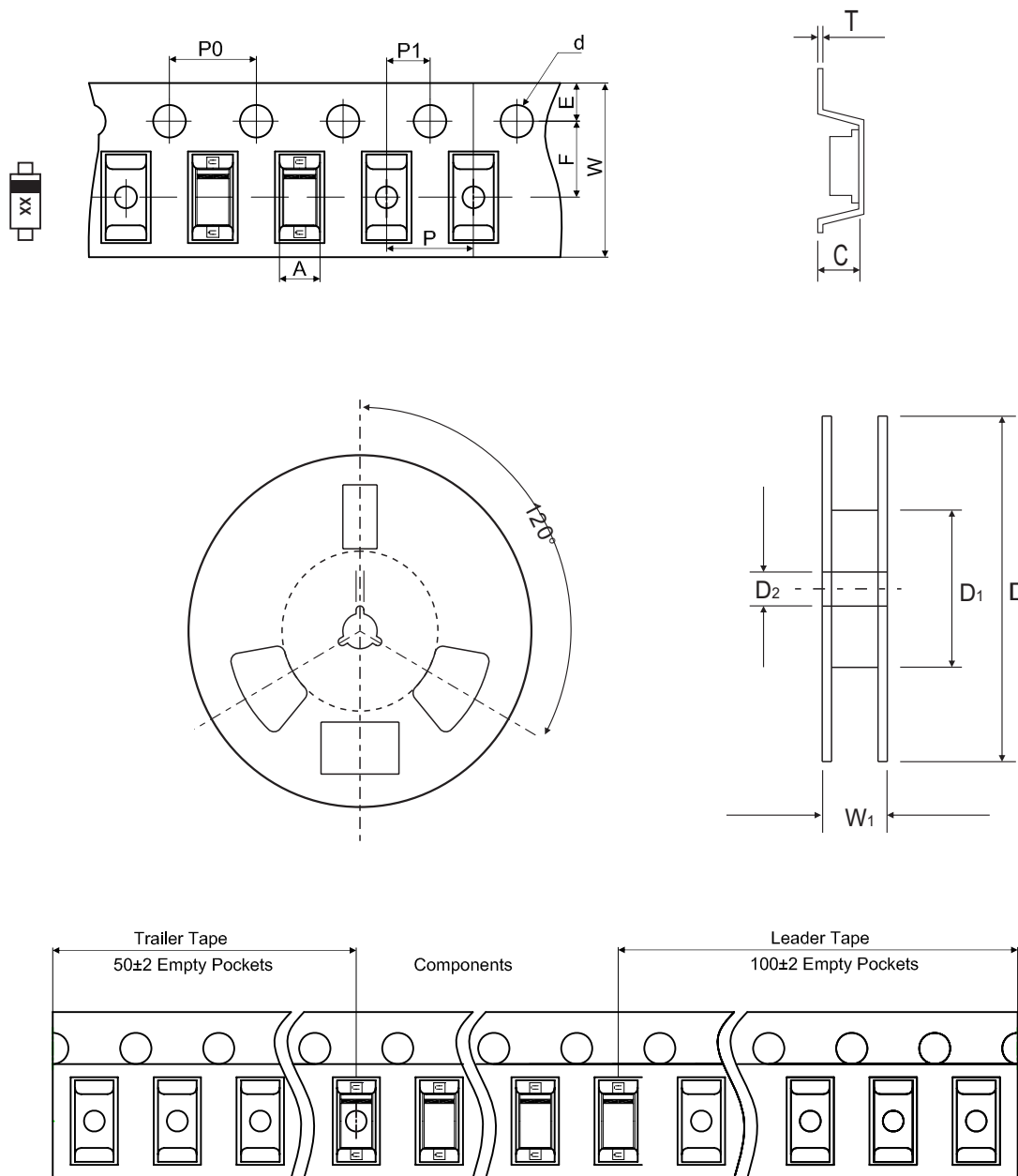
Fig.4 - Typical Capacitance V.S. Reverse Voltage



# SMD Switching Diode



## Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(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 <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(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

## SMD Switching Diode

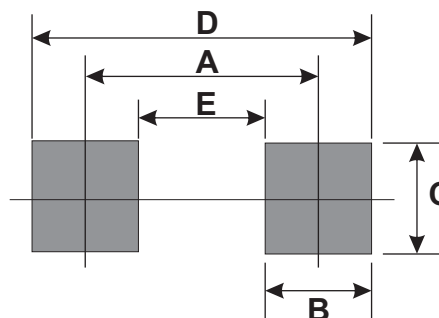
### Marking Code

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