

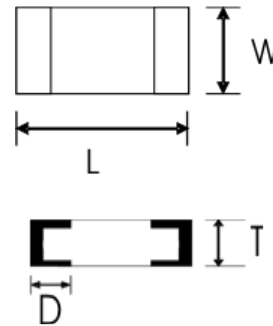
Voltage : 50V

Current: 0.15 Ampere

Part No: **CD4151WP (1206)**

<b>APPLICATION</b> Ultra high speed switching
<b>FEATURE</b> Small surface mounting type (1206) High speed. (TRR=4.0nSec Type) Suitable for high packing density. Maximum total power dissipation is 500mW. Peak forward current is 500mA. Withstand 260°C soldering temperature. ESD rating of class 3(>10KV)per human body model.
<b>CONSTRUCTION</b> Silicon epitaxial planar
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

**DIMENSION** (mm)  
CD4151WP (1206)  
L: 3.4mm  
W: 1.7mm  
T: 0.95mm  
D: 0.75mm



CIRCUIT



**MAXIMUM RATING (At Ta = 25°C unless otherwise noted)**

RATING	SYMBOL	CD4151WP (1206)	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	75	Volts
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	Volts
Maximum working Peak Reverse Voltage	V <sub>RWM</sub>		
Maximum DC Blocking Voltage	V <sub>DC</sub>		
Maximum RMS Voltage	V <sub>RMS</sub>	35	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	0.15	Amps
Peak Forward Surge Current	IFSM	@1Sec	1.0
		@1.0uSec	2.0
Typical Junction Capacitance between terminal ( Note 1)	C <sub>J</sub>	2.0	pF
Maximum Reverse Recovery ( Note 2 )	TRR	4.0	nSec
Maximum Thermal Resistance	R <sub>θJA</sub>	350	°C/W
Maximum operating and storage temperature range.	T <sub>J</sub> , T <sub>STG</sub>	-65+150	°C

<b>Package:</b>	
Part No	CD4151WP (1206)
Reel:	5K Pcs
G.W.	0.2 Kg / Reel
Box:	50K Pcs
Carton:	300K PCS
C/Size:	41x39x21cm
G.W.:	13Kg / Carton
Brand:	SINLOON

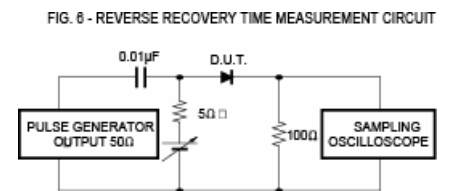
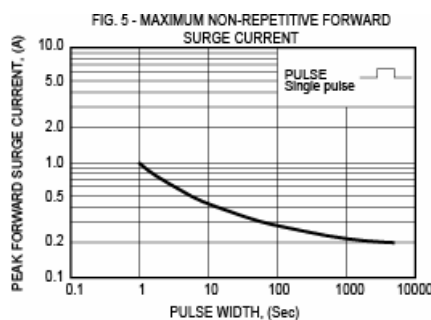
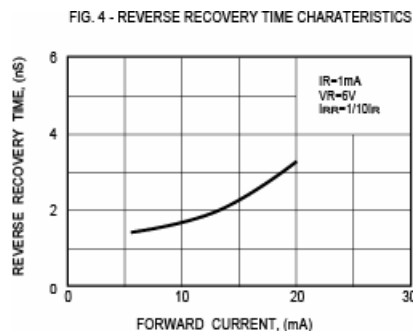
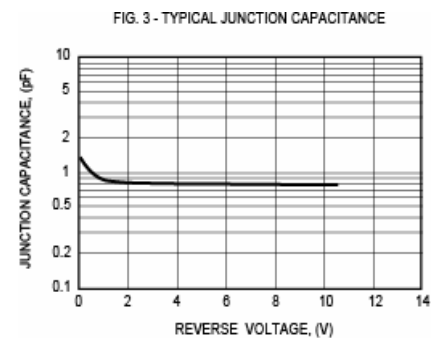
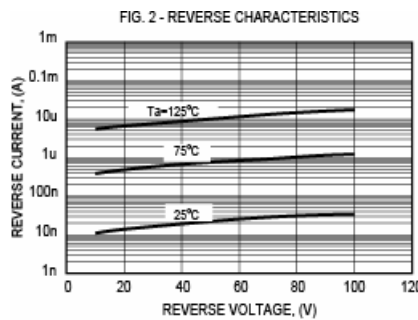
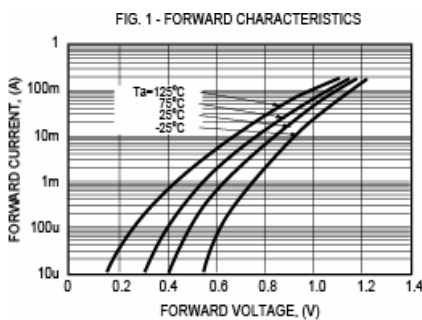


**ELECTRICAL CHARACTERISTICS ( At Ta = 25°C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	CD4151WP (1206)	UNITS
Maximum Instantaneous Forward Voltage at I = 1-mA	V <sub>F</sub>	1.0	Volts
Maximum Average Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 50V @T <sub>J</sub> =25°C	50
		V <sub>R</sub> = 50V @T <sub>J</sub> =150°C	50

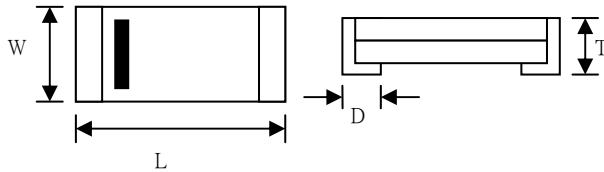
- NOTES 1 Measured at 1.0 MHz and allied reverse voltage of 0 voltage  
 2 Measured at applied forward current of 10mA, reverse current of 1.0 mA, Reverse voltage of 6.0 voltage and RL = 100 ohms.  
 3 ESD sensitive product handling required.

**RATING CHARACTERISTICS CURVES**



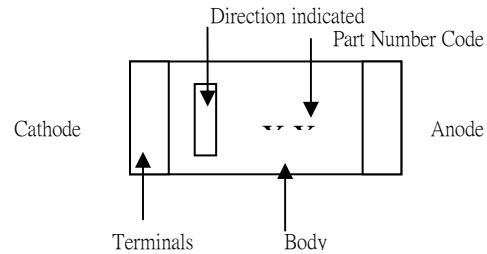
## OUTLINE DIMENSION

Item	0603	0805	1206	SOD-123
L	1.55±0.1 (0.062±0.004)	2.00±0.20 (0.080±0.008)	3.2±0.20 (0.127±0.008)	3.50±0.10 (0.140±0.002)
W	0.8±0.10 (0.032±0.004)	1.25±0.20 (0.062±0.004)	1.50±0.20 (0.059±0.008)	1.50±0.10 (0.059±0.004)
T	0.065±0.10 (0.026±0.004)	0.85±0.10 (0.034±0.004)	0.85±0.10 (0.034±0.004)	0.92±0.10 (0.036±0.004)
D	0.35±0.10 (0.014±0.004)	0.45±0.20 (0.018±0.008)	0.55±0.20 (0.022±0.008)	0.35±0.10 (0.0137±0.004)



## DEVICE MARKING

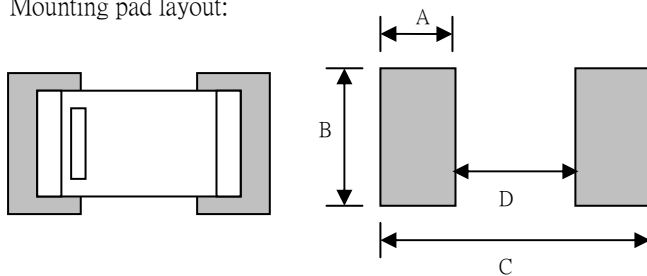
Device has been marked indelibly and legibly as follow



## MOUNTING PAD

Unit : mm

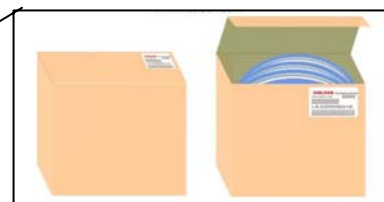
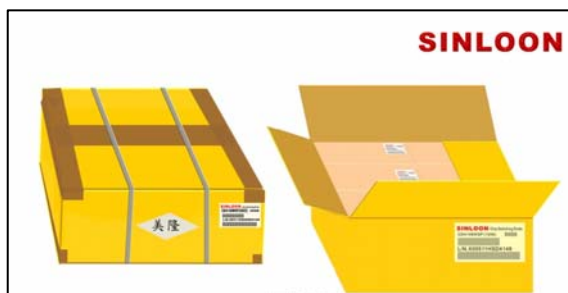
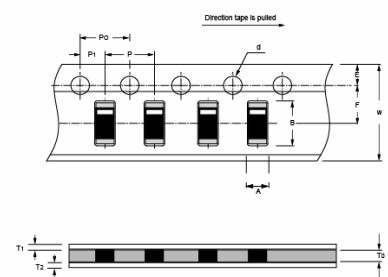
Mounting pad layout:



Layout	A	B	C	D
Size: 0805	1.2	1.2	3.3	0.9
Micro Melf	0.9	1.4	2.8	1.0
SOD-323	1.35	0.65	3.75	1.05
1206	1.2	1.7	4.1	1.7
Mini Melf	1.35	1.7	4.8	2.1
SOD-123	1.2	0.7	4.9	2.5

## REEL TAPING SPECIFICATIONS

Item	Symbol	Specifications (mm)			
		Size: 0603	Size: 0805	Size: 1206	SOD-123
Carrier width	A	1.10±0.05	1.65±0.10	2.0±0.10	2.0±0.10
Carrier length	B	1.90±0.05	2.40±0.10	3.6±0.10	3.8±0.10
Sprocket hole	d	1.50±0.15	1.50±0.15	1.50±0.05	1.50±0.05
Sprocket hole position	E	1.75±0.10	1.75±0.10	1.75±0.1	1.75±0.1
Punch hole position	F	3.50±0.05	3.50±0.05	3.5±0.05	3.5±0.05
Punch hole pitch	P	4.00±0.10	4.00±0.10	4.0±0.10	4.0±0.10
Sprocket hole pitch	Po	4.00±0.10	4.00±0.10	4.0±0.10	4.0±0.10
Embossment centre	P1	2.0±0.05	2.0±0.05	2.0±0.05	2.0±0.05
Base tape width	W	8.0±0.20	8.0±0.20	8.0±0.20	8.0±0.20
Top/Bottom seat tape width	W1	5.25±0.05	5.25±0.05	5.25±0.05	5.25±0.05
Base tape thickness	T0	0.95±0.02	0.95±0.02	0.95±0.02	1.05±0.02
Top seat tape thickness	T1	0.054±0.005	0.054±0.005	0.054±0.005	0.054±0.005
Bottom seat tape thickness	T2	0.042±0.005	0.042±0.005	0.042±0.005	0.042±0.005



## Small Signal - Chip Switching Diode

Part No.	Peak Repetitive Reverse Voltage V <sub>RRM</sub> (V)	Max. Average Rectified Current I <sub>o</sub> (mA)	Peak Forward Surge Current I <sub>FSM</sub> (A)	Forward Voltage Drop V <sub>F</sub> (A)	Max Reverse Current I <sub>R</sub> (uA)	Power Rating (mW)	Reverse Recovery T <sub>RR</sub> (nSec)	Capacitance C <sub>tot</sub> (pF)
1 CD4148WTP (0603)	75	150	0.2	1.0	5.0	300	4.0	4.0
2 CD4148WSP (0805)	75	150	0.2	1.0	5.0	300	4.0	4.0
3 CD4148WP (1206)	75	150	0.2	1.0	5.0	300	4.0	4.0
4 CD4151WP (1206)	50	150	0.2	1.0	5.0	500	4.0	2.0
5 CD4448WP (1206)	75	150	0.2	1.0	5.0	300	4.0	4.0
6 HSD4148 SOD-123	75	150	0.2	1.0	5.0	300	4.0	3.0
7 HSD4151 SOD-123	50	150	0.2	1.0	50 nAmps	500	4.0	2.0
8 HSD4448 SOD-123	75	150	0.2	1.0	5.0	300	4.0	3.0
9 BASM16 SOD-123	100	150	0.2	1.0	1.0 (V <sub>R</sub> =75V)	350	4.0	1.5
10 MAVM70 SOD-123	75	150	0.2	1.0	2.5 (V <sub>R</sub> =75V)	300	4.0	1.5