

Voltage : 75V

Current: 0.15 Ampere



CHIP SWITCHING DIODE

Part No: CD4148WSP (0805)

APPLICATION

Ultra high speed switching

FEATURE

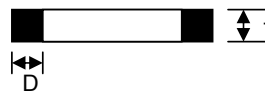
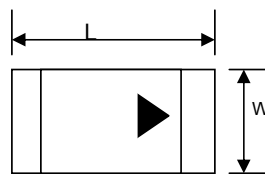
Small surface mounting type (0805)
High speed. (TRR=4.0nSec Type)
Suitable for high packing density.
Maximum total power dissipation is 300mW.
Peak forward current is 500mA.
Withstand 260°C soldering temperature.
ESD rating of class 3(>10KV)per human body model.

CONSTRUCTION

Silicon epitaxial planar

DIMENSION (mm)

CD4148WSP (0805)
L: 2.2mm
W: 1.45mm
T: 0.95mm
D: 0.65mm



CIRCUIT



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.

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

RATING	SYMBOL	CD4148WSP (0805)	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	V _{RM}	100	Volts
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	75	Volts
Maximum working Peak Reverse Voltage	V _{RWM}		
Maximum DC Blocking Voltage	V _{DC}		
Maximum RMS Voltage	V _{RMS}	53	Volts
Maximum Average Forward Rectified Current	I _O	0.15	Amps
Peak Forward Surge Current	@1Sec	IFSM	1.0
	@1.0uSec		2.0
Typical Junction Capacitance between terminal (Note 1)	C _J	4.0	pF
Maximum Reverse Recovery (Note 2)	TRR	4.0	nSec
Maximum Thermal Resistance	R _{θ JA}	350	°C/W
Maximum operating and storage temperature range.	T _J , T _{STG}	-65+150	°C

Package:

Part No	CD4148WSP (0805)
Reel:	5K Pcs
G.W.	0.17Kg
Box:	50K Pcs
Carton:	300K PCS
C/Size:	41x39x21cm
G.W.:	10.5kgs
Brand:	SINLOON



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

CHARACTERISTICS	SYMBOL	CD4148WSP (0805)	UNITS
Maximum Instantaneous Forward Voltage at = 1-mA	V _F	1.0	Volts
Maximum Average Reverse Current	VR= 20V @T _J =25°C	25	nAmps
	VR= 75V @T _J =25°C	5.0	
	VR= 20V @T _J =150°C	30	
	VR= 70V @T _J =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

FIG. 1 - FORWARD CHARACTERISTICS

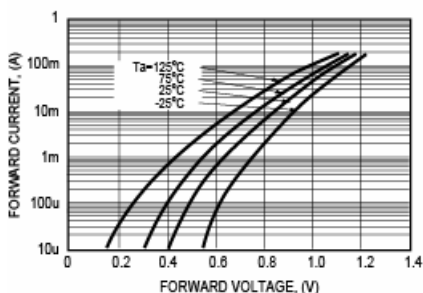


FIG. 2 - REVERSE CHARACTERISTICS

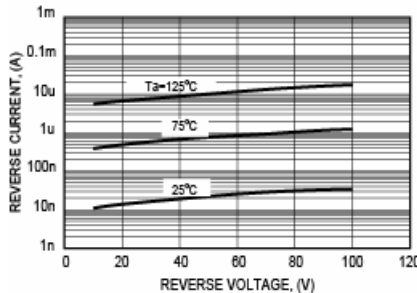


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

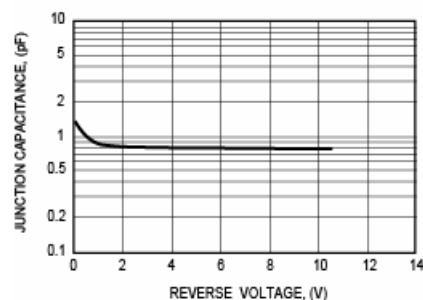


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

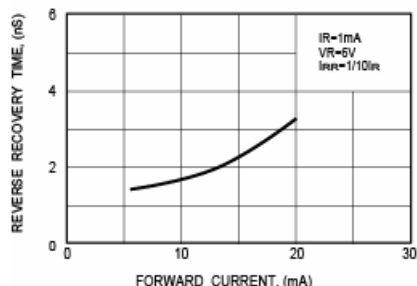


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

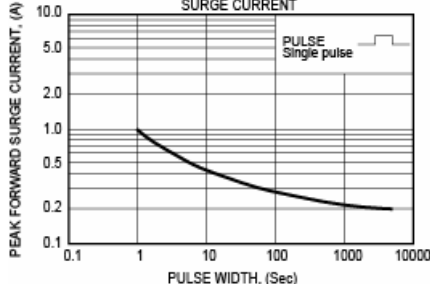
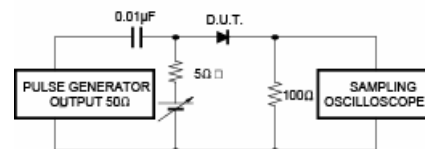


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT



Voltage : 75V

CHIP SWITCHING DIODE

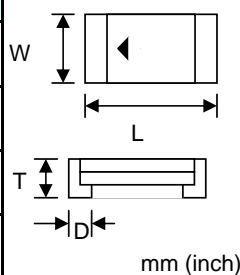
Current: 0.15 Ampere

Part No: CD4148SP (0805)

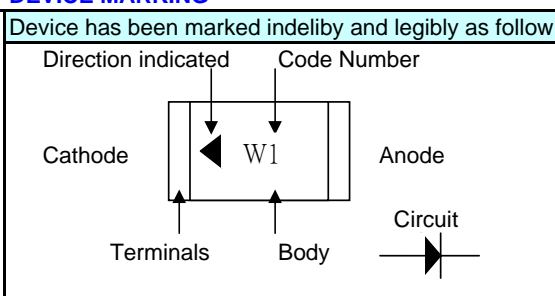


OUTLINE DIMENSION

Item	0603 (mm)	0805 (mm)	1206 (mm)
L	1.55±0.1 (0.062±0.004)	2.00±0.20 (0.080±0.008)	3.20±0.10 (0.140±0.002)
W	0.80±0.1 (0.032±0.004)	1.25±0.20 (0.062±0.004)	1.50±0.10 (0.059±0.008)
T	0.065±0.1 (0.016±0.004)	0.85±0.10 (0.034±0.004)	0.85±0.10 (0.034±0.004)
D	0.350±0.1 (0.014±0.004)	0.450±0.20 (0.018±0.008)	0.550±0.20 (0.022±0.008)



DEVICE MARKING

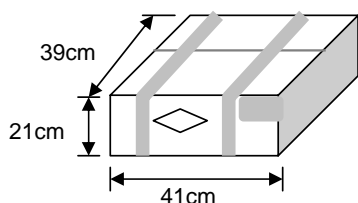
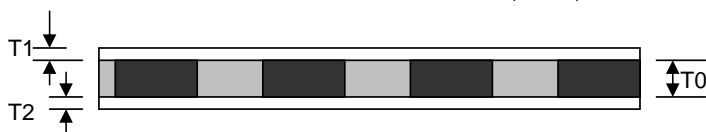
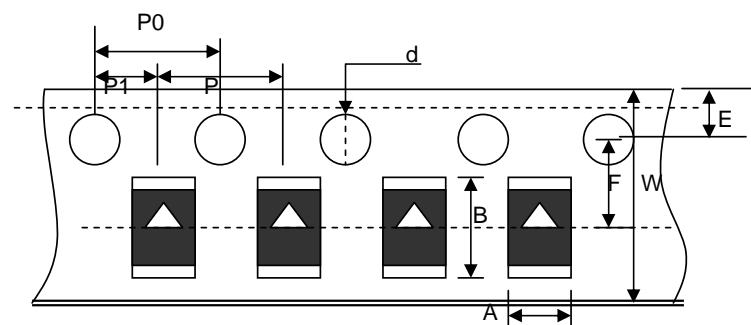
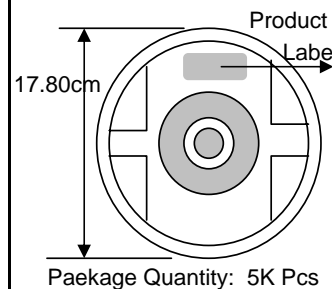
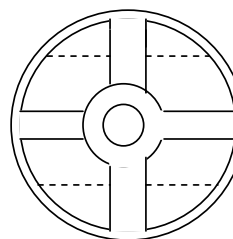
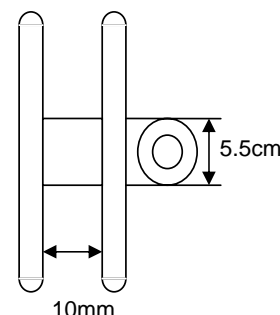


MOUNTING PAD

Layout	A	B	C	D	Remark
Size					
0805	1.20	1.20	3.30	0.90	Desing
Micro Melf	0.90	1.40	2.80	1.00	Suggestion
SOD-123	1.35	0.65	3.75	1.05	0805 Size
1206	1.20	1.70	4.10	1.70	Desing
Mini Melf	1.35	1.70	4.80	2.10	Suggestion
SOD-123	1.20	0.70	4.90	2.50	1206 Size

REEL TAPING SPECIFICATIONS

Item	Symbo	Size SPECIFICATIONS (mm)			
		0603	0805	1026	SOD-123
Carrier width	A	1.10±0.05	1.65±0.10	2.00±0.10	2.00±0.10
Carrier length	B	2.00±0.05	2.40±0.10	3.60±0.10	3.80±0.10
Sprocket hole	d	1.50±0.15	1.50±0.15	1.50±0.15	1.50±0.15
Project hole position	E	1.75±0.10	1.75±0.10	1.75±0.10	1.75±0.10
Punch hole position	F	3.50±0.50	3.50±0.50	3.50±0.50	3.50±0.50
Punch hole pitch	P	4.00±0.10	4.00±0.10	4.00±0.10	4.00±0.10
Sprocket hole pitch	Po	4.00±0.10	4.00±0.10	4.00±0.10	4.00±0.10
Embossment centre	P1	2.00±0.05	2.00±0.05	2.00±0.05	2.00±0.05
Base tape width	W	8.00±0.20	8.00±0.20	8.00±0.20	8.00±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



Carton:
Size: 41x39x21cm
Quantity: 300K PCS
In Box: 50K PCS
G.W: 10.5 Kgs

Voltage : 75V

CHIP SWITCHING DIODE

Current: 0.15 Ampere



Part No: CD4148WSP (0805)

Part No.	Peak Repetitive Reverse Voltage VRRM (V)	Max. Average Rectified Current (mA)	Peak Forward Surge Current IFSM (A)	Forward Voltage Drop VF (V)	Max. Reverse Current IR (uA)	Power Rating (mW)	Reverse Recovery TRR (nSec)	Capacitance Ctot (pF)	
1	CD4148WTP (0603)	75	150	0.20	1.00	5.00	300.0	4.00	4.0
2	CD4148WTP (0603)	75	150	0.20	1.00	5.00	300.0	4.00	4.0
3	CD4148WTP (0603)	75	150	0.20	1.00	5.00	300.0	4.00	4.0

Mayloon Electronic Co., Ltd.,
Flat E, 17/F Houston Ind., Bldg., 32-40 Wang Lung St.,
Tsuen Wan, N.T. Hong Kong.
Tel: 852-2408 9788 Fax: 852-2406 9986
<http://www.mayloon.com> E-Mail: mayloon@netvigator.com

*We power your
everyday*