Voltage : 75V

Current: 0.15 Ampere

Part No: HSD4448 SOD-123

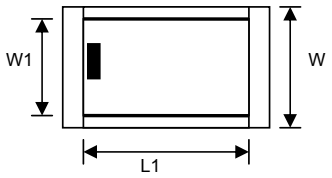
APPLICATION
Ultra high speed switching

FEATURE
Small surface mounting type (SOD-123)
High speed. (TRR=4.0nSec Type)
Suitable for high packing density.
Maximum total power disspation is 300mW.
Peak forward current is 500mA.
Withstand 275℃ soldering temperature.
ESD rating of class 3(>10KV)per human body model.

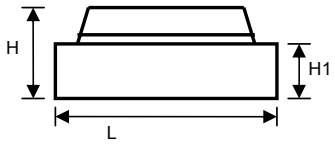
CONSTRUCTION
Sillcon epitaxial planar

MAXIMUM RATINGS AND ELECTRICAL CHARCTERISTICS
Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive of inductive load.
For capacitive load, derate current by 20%.

DIMENSION (mm)
HSD4448 SOD-123
W: 1.60mm
W1 1.25mm
L1 2.85mm
H 0.93mm
H1 0.55mm
L 3.60mm



CIRCUIT



MAXIMUM RATING (At Ta = 25℃ unless otherwise noted)

RATING		SYMBOL	HSD4448	UNITS
Maximum Non-Repetitive Peak Reverse Voltage		VRM	100	Volts
Maximum Repetitive Peak Reverse Voltage Maximum working Peak Reverse Voltage Maximum DC Blocking Voltage		VRRM VRWM VDC	75	Volts
Maximum RMSVoltage		VRMS	53	Volts
Maximum Average Forward Rectified Current		IO	0.15	Amps
Peak Forward Surge Currnet	@1Sec @1,0uSec	IFSM	1.0 2.0	Amps
Typical Junction Capacitance between terminal (Note 1)		CJ	3.0	pF
Maximum Revere Recovery (Note 2)		TRR	4.0	nSec
Maximum Thermal Resistance		RθJA	350	℃/W
Maximum operating and storage temperature range.		TJ, TSTG	-65+150	℃

Package:	
Part No	HSD4448 SOD-123
Reel:	4K Pcs
G.W.	0.16 Kg / Reel
Box:	40K Pcs
Carton:	240K PCS
C/Size:	41x39x21cm
G.W.:	10Kg / Carton
Brand:	SINLOON

ELECTRICAL CHARACTERISTICS (At Ta = 25℃ unless otherwise noted)

CHARACTERICS		SYMBOL		HSD4448	UNITS
Maximum Instantancous Forward Voltage at = 50mA		VF	IF=5mA	0.72	Volts
			IF=100mA	1.00	
Maximum Average Reverse Current	VR= 50V @TJ=25℃	IR		25	nAmps
	VR= 75V @TJ=25℃			5.0	uAmps
	VR= 20V @TJ=150℃			30	uAmps
	VR= 70V @TJ=150℃			50	uAmps

NOTES 1 Measured at 1.0 MHz and alllied reverse voltage of 0 voltage
2 Measured at applied froward 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 CUVES

FIG. 1 - FORWARD CHARACTERISTICS

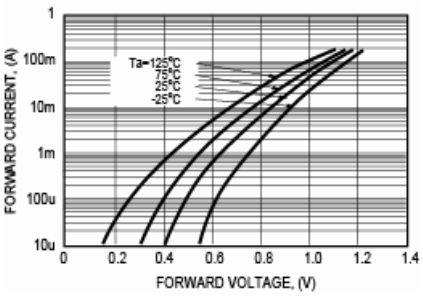


FIG. 2 - REVERSE CHARACTERISTICS

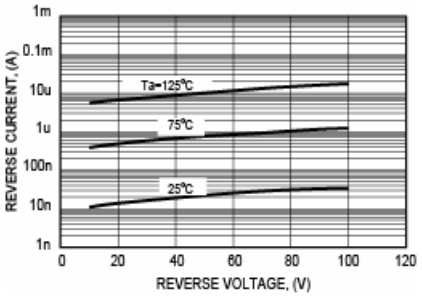


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

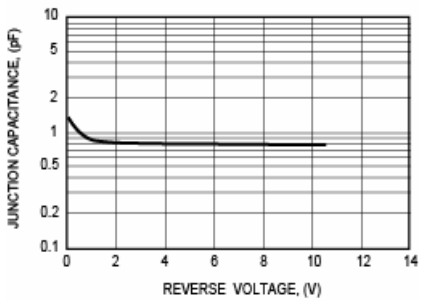


FIG. 4 - REVERSE RECOVERY TIME CHARATERISTICS

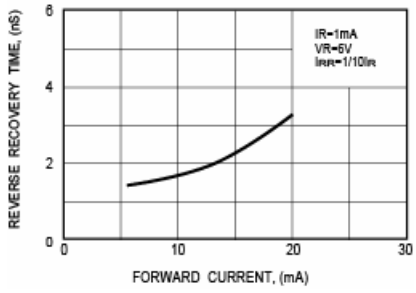


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

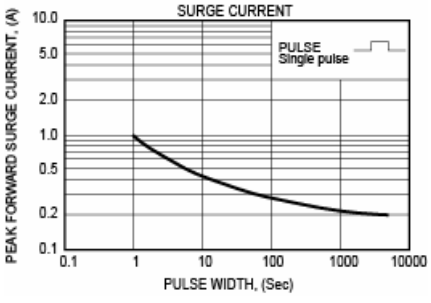
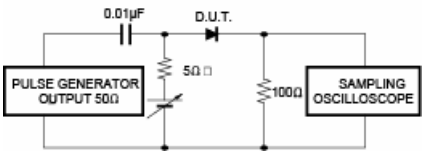
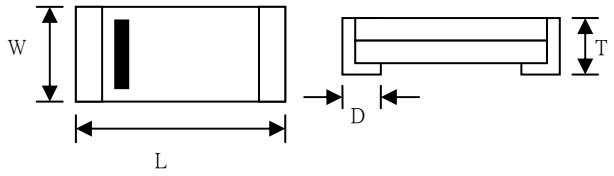


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT



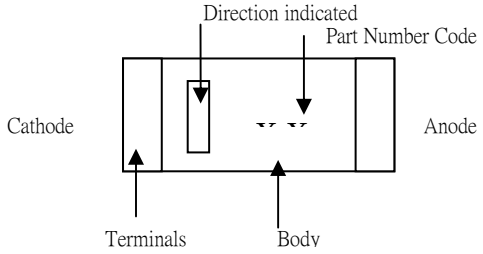
OUTLINE DIMENSION

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

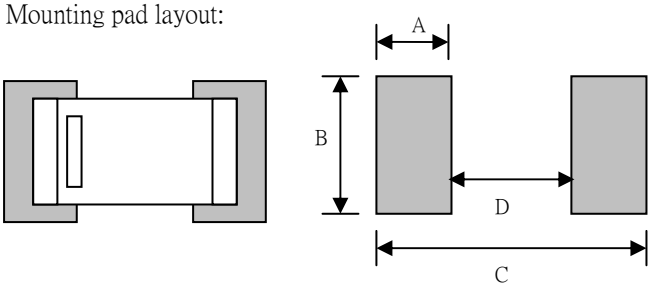
Device has been marked indelibly and legibly as follow



MOUNTING PAD

Unit : mm

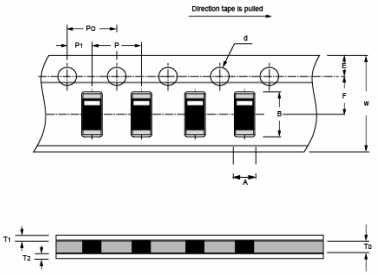
Mounting pad layout:

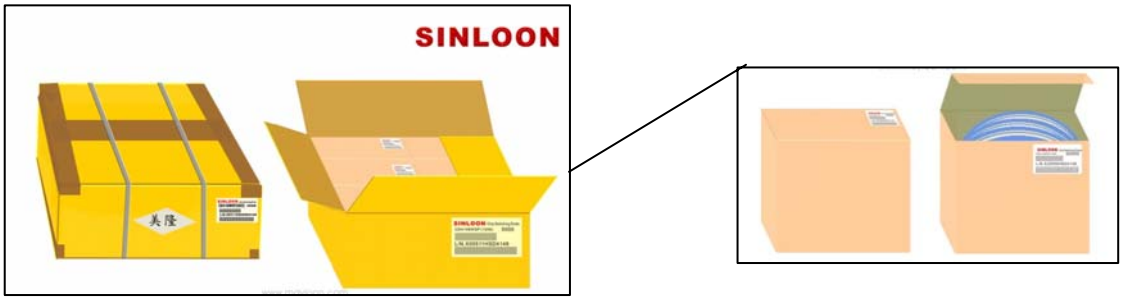


Layout Size:	A	B	C	D
0805	1.2	1.2	3.3	0.9
Micro Melf	0.9	1.4	2.8	1.0
SOD-323	1.35	0.65	3.75	1.05
1206	1.2	1.7	4.1	1.7
Mini Melf	1.35	1.7	4.8	2.1
SOD-123	1.2	0.7	4.9	2.5

RELL TAPING SPECIFICATIONS

Item	Symbol	Specifications (mm)			
		Size: 0603	Size: 0805	Size: 1206	SOD-123
Carrier witdth	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
Sprojet 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 thichness	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 thichness	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_{RRM} (V)	Max. Average Rectified Current Io (mA)	Peak Forward Surge Current I_{FSM} (A)	Forward Voltage Drop V_F (A)	Max Reverse Current I_R (uA)	Power Rating (mW)	Reverse Recovery T_{RR} (nSec)	Capacitance Ctot (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 (VR=75V)	350	4.0	1.5
10	MAVM70 SOD-123	75	150	0.2	1.0	2.5 (VR=75V)	300	4.0	1.5