

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

RCLAMP0544M-MS

Product specification

Features

- Ultra low leakage: nA level
 - Operating voltage: 5V
 - Low clamping voltage
 - Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
- Air discharge: $\pm 30\text{kV}$
- Contact discharge: $\pm 30\text{kV}$
- IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 5A (8/20 μs)
 - RoHS Compliant

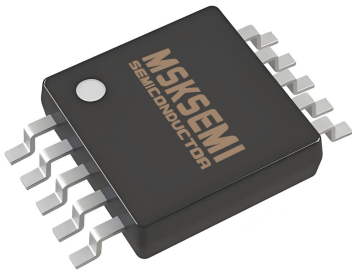
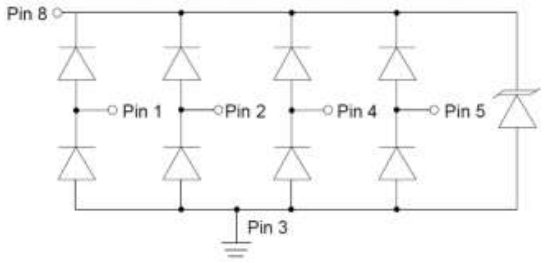

Mechanical Characteristics

- Package: MSOP-10
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 500pcs

Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

Reference News

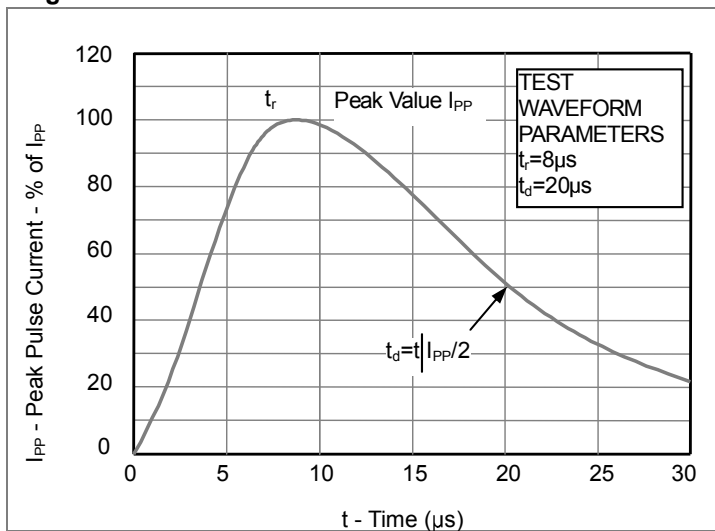
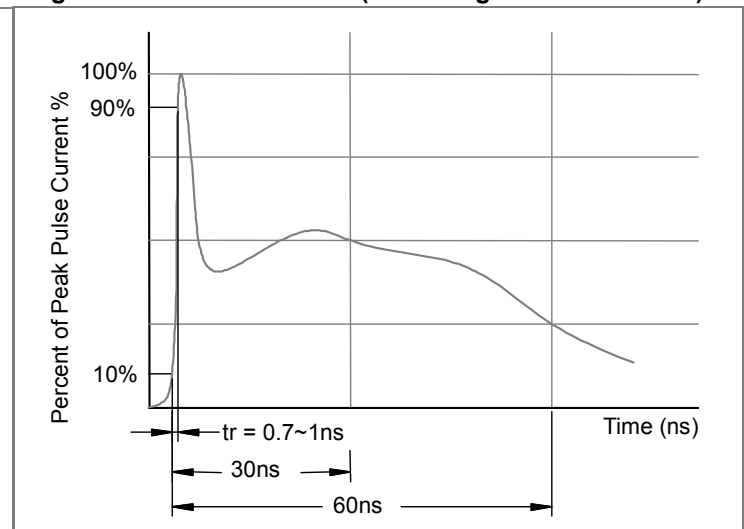
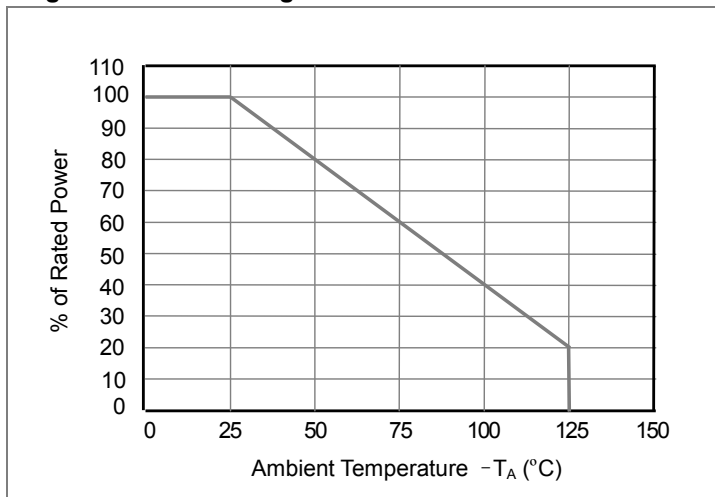
MSOP-10	PIN Configuration	Marking
		

Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

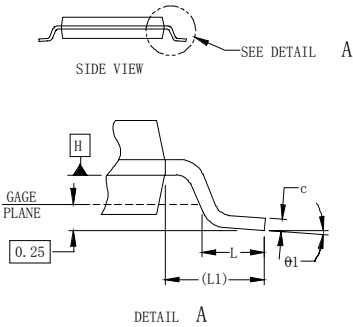
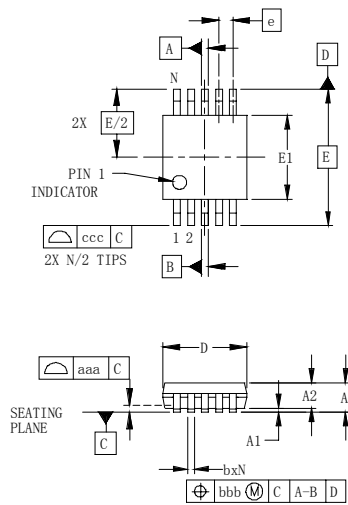
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	100	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	Kv
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Part Number	V_{RWM} (V)	V_{BR} (V)	I_r (mA)	V_c @1A	V_c		I_r μA (Max)	C (Pf) (Ty.)
					(Max)	(@A)		
RCLAMP0544M-MS	5	6	1	15	20	5	1	0.5

Characteristic Curves
Fig1. 8/20 μs Pulse Waveform

Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

Fig3. Power Derating Curve


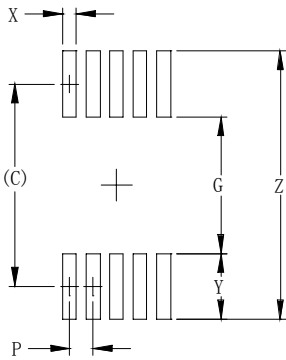
MSOP-10 Package Outline Drawing



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	—	—	.043	—	—	1.10
A1	.000	—	.006	0.00	—	0.15
A2	.030	—	.037	0.75	—	0.95
b	.007	—	.011	0.17	—	0.27
c	.003	—	.009	0.08	—	0.23
D	.114	.118	.122	2.90	3.00	3.10
E1	.114	.118	.122	2.90	3.00	3.10
E	.193 BSC			4.90 BSC		
e	.020 BSC			0.50 BSC		
L	.016	.024	.032	0.40	0.60	0.80
L1	(.037)			(.95)		
N	10			10		
θ1	0°	—	8°	0°	—	8°
aaa	.004			0.10		
bbb	.003			0.08		
ccc	.010			0.25		

- NOTES:
1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
 2. DATUMS -A- AND -B- TO BE DETERMINED AT DATUM PLANE -H-
 3. DIMENSIONS "E1" AND "D" DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
 4. REFERENCE JEDEC STD MO-187, VARIATION BA.

Suggested Land Pattern



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.161)	(4.10)
G	.098	2.50
P	.020	0.50
X	.011	0.30
Y	.063	1.60
Z	.224	5.70

- NOTES:
1. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

Order information

Orderable Device	Package	Packing Option
RCLAMP0544M-MS	MSOP-10	500PCS

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