

DESCRIPTION

The SELC0518MA is an ultra low capacitance TVS array. It is designed to protect computing applications such as gigabit Ethernet , HDMI , USB and DVI interfaces as well as telecommunication equipment and systems.

The SELC0518MA is available in the space-saving MSOP-10 package configuration. It meets the IEC 61000-4-2 (ESD), 61000-4-2 (EFT) and 61000-4-4 (Surge) requirements . At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern . This device in conjunction with passive components integrated into a TVS/filter network can be used for EMI/RFI protection.

FEATURES

- > 50 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- > Protects eight I/O lines and one Vcc power line
- > Low capacitance: 1.0pF typical
- > Weight: 12mg
- > RoHS Compliant

APPLICATIONS

- > High Definition Multi-Media Interface (HDMI)
- > Digital Visual Interface (DVI)
- > MDDI Ports
- > PCI Express
- > Serial ATA

IEC COMPATIBILITY

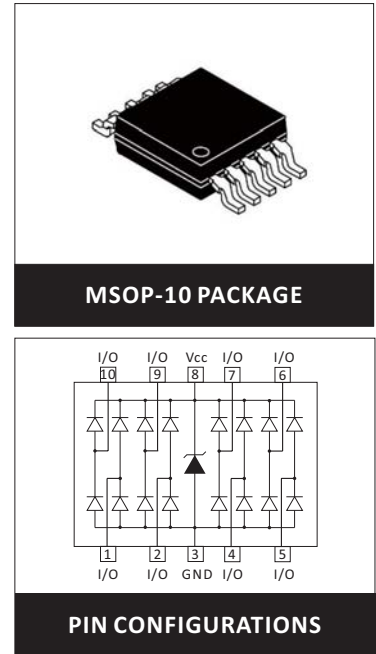
- > IEC61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- > IEC61000-4-4 (EFT) 40A (5/50ns)

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power ($t_p=8/20\mu s$ waveform)	PPP	50	Watts
Lead Soldering Temperature	T _L	260(10 sec.)	°C
Operating Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED

PART NUMBER	DEVICE MARKING	V _{RWM}	V _B	I _T	V _C @1A	V _C		I _R	C _T
		(V) Max.	(V) Min.	(mA)	Max.	Max.	@ A	(uA) Max.	(pF) Typ.
SELC0518MA	LC05 18MA	5.0	6.0	1	6.5	15.0	1.0	1	1

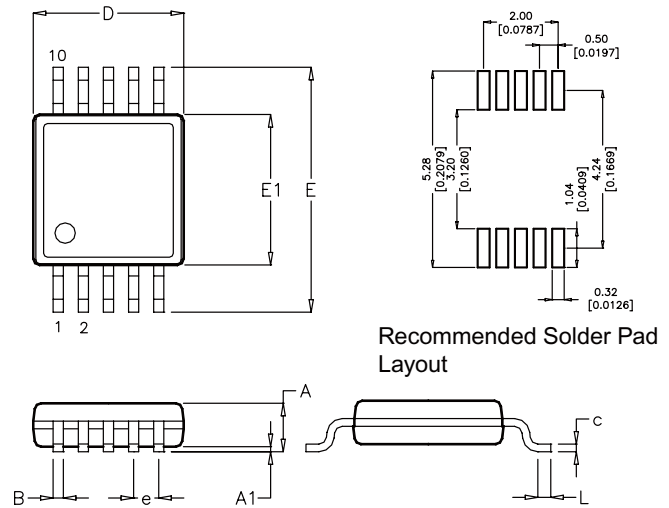


DSO-10 PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	-	1.10	-	0.043
A1	0.00	0.15	0.000	0.006
B	0.17	0.27	0.007	0.011
c	0.08	0.23	0.003	0.009
D	2.90	3.10	0.114	0.122
E	4.67	5.10	0.184	0.200
E1	2.90	3.10	0.114	0.122
e	0.50 Nominal		0.020 Nominal	
HE	0.40	0.80	0.016	0.031

NOTES

- Controlling dimension: inches.
- Dimensions are exclusive of mold flash and metal burrs.

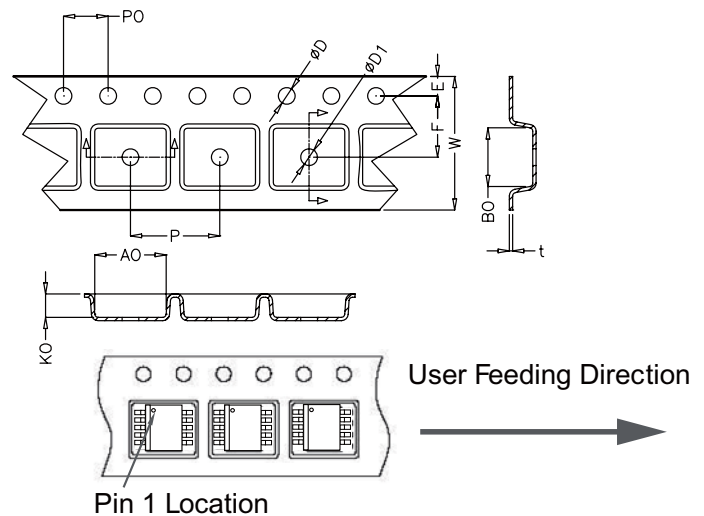


TAPE AND REEL

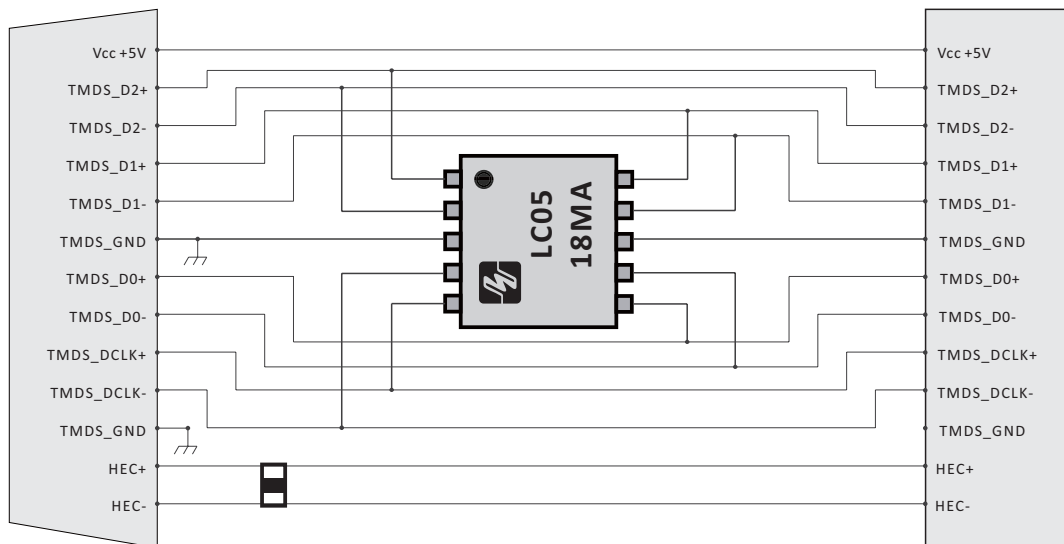
DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
E	1.65	1.85	0.065	0.073
F	5.40	5.60	0.213	0.220
D	1.50	1.60	0.059	0.063
D1	1.50 Min.		0.059 Min.	
P0	3.90	4.10	0.154	0.161
10P0	40.0 ± 0.20		1.574 ± 0.008	
W	11.90	12.10	0.469	0.476
P	7.90	8.10	0.311	0.319
A0	5.20	5.40	0.205	0.213
B0	3.20	3.40	0.126	0.134
K0	1.20	1.40	0.047	0.055
t	0.3 ± 0.05		0.012 ± 0.002	

NOTES

- Controlling dimension: inches.
- Dimensions are exclusive of mold flash and metal burrs.



APPLICATION EXAMPLE



ENVIRONMENTAL CHARACTERISTICS

Testing Items	Technical Standards
High Temperature Reverse Bias Test	Temperature:150±3°C,Bias=80%V _{DRM} ;Time:168H
High Temperature Life Test	Temperature:150°C;Time:168H
High-Low Temperature Cycle Test	Temperature:From -40°C to 150°C;Dwell Time:30min,10-100 Cycles
High Temperature&High Humidity Test	Temperature:85°C.Humidity:85%; Time:168H
Pressure Cooker Test	Temperature:121°C,2 atm.Humidity:100%; Time:24H To 168H
Resistance Of Soldering Heat	Temperature:260±5°C;Time Of Dip Soldering:10s,3 Times

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SELC0518MA	MSOP-10	3000PCS	7"

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