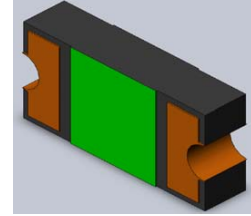


Description

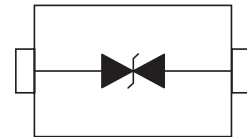
The GMLSEP24A-0603 is an ultra low capacitance polymer ESD suppressor designed to protect high speed data interfaces. The device has a typical capacitance of only 0.05pf (I/O to GND) and meets the ESD immunity requirements of IEC61000-4-2 (15KV air, 8KV contact discharge).



Case: 0603

Features

- ESD protection for high speed data lines to IEC61000-4-2
- ESD contact discharge typical 8KV, max 15KV
- ESD air discharge typical 15KV, max 25KV
- Multilayer structure
- Surface mount
- Extremely low capacitance
- Low leakage current
- Fast response time
- Bi-directional ESD protection
- Lead free solder termination
- Ideal ESD solution for high frequency, low voltage applications



Schematic Diagram

Applications

- High Definition Multi-Media Interface (HDMI)
- Digital Visual Interface (DVI)
- Display Port Interface (DP)
- Unified Display Interface (UDI)
- Mobile Display Digital Interface (MDDI)
- Gigabit Ethernet
- USB2.0 and USB3.0
- IEEE1394 Interface

Absolute Maximum Ratings

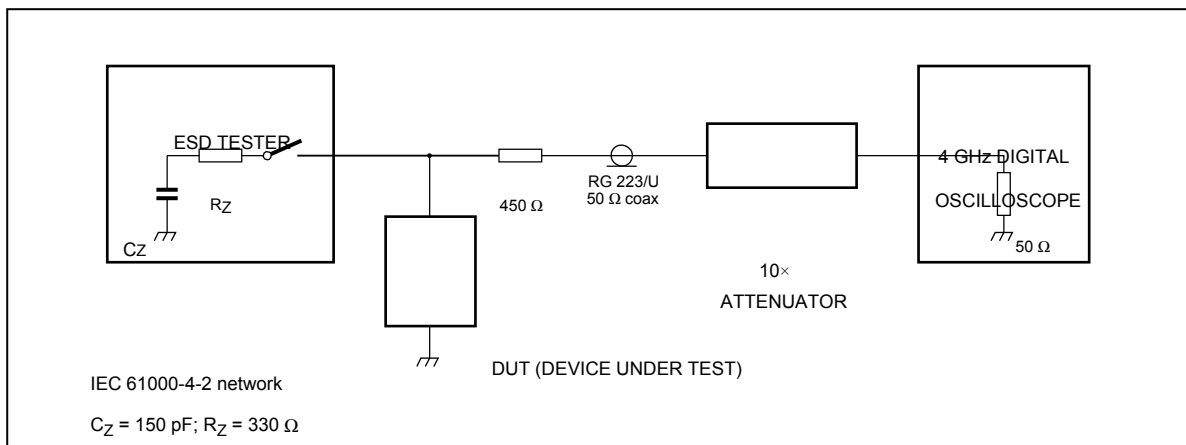
Parameter	Symbol	Value	Unit
Maximum Contact Discharge Voltage Per IEC61000-4-2	---	15KV	V
Maximum Air Discharge Voltage Per IEC61000-4-2	---	25KV	V
Maximum Operating Temperature	T _{OPER}	-55 to +125	°C
Maximum Storage Temperature	T _{STG}	-55 to +125	°C
Maximum Lead Temperature for Soldering During 10s	T _L	260	°C

Electrical Characteristics(T_A=25°C)

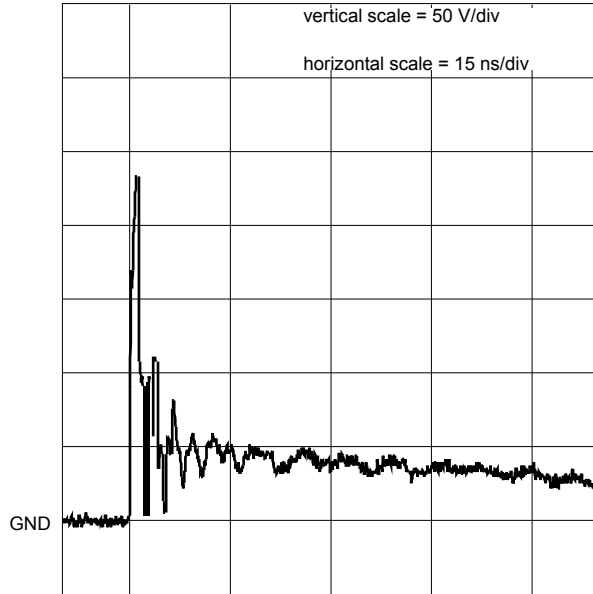
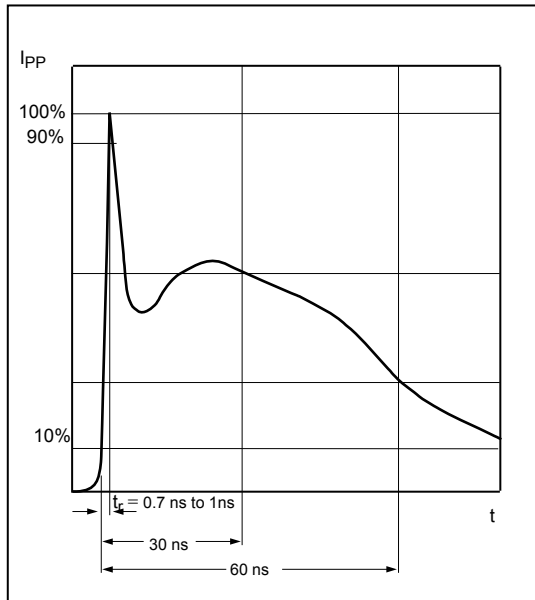
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Rated Voltage	V _R	---	---	---	24	V
Trigger Voltage	V _T	IEC61000-4-2 8KV contact discharge	---	300	---	V
Clamping Voltage	V _C	IEC61000-4-2 8KV contact discharge	---	35	---	V
Leakage Current	I _L	DC 24V shall be applied on component	---	0.01	0.1	μA
Capacitance	C _P	V _R = 0V, f = 1MHz	---	0.05	---	pF

- Note: 1. Trigger and clamping voltage are measured per IEC 61000-4-2, 8KV contact discharge method.
 2. After reliability tests such as high temp storage, temp cycles, continuous ESD strike etc, the maximum leakage current is less than 10uA.

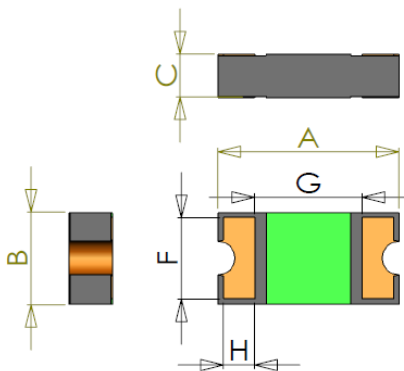
ESD Clamping Test



ESD Clamping Test Waveforms

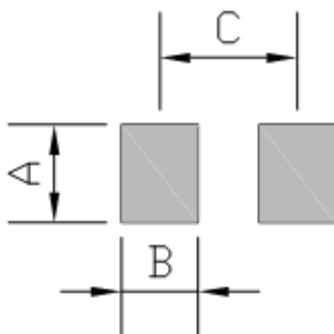


Package Outline Dimensions



Symbol	Dimension			Unit
	Min	Typ	Max	
A	1.50	1.60	1.70	mm
B	0.74	0.82	0.90	
C	0.32	0.36	0.40	
H	0.265	0.285	0.305	
F	0.70	0.72	0.74	
G	0.93	0.95	0.97	

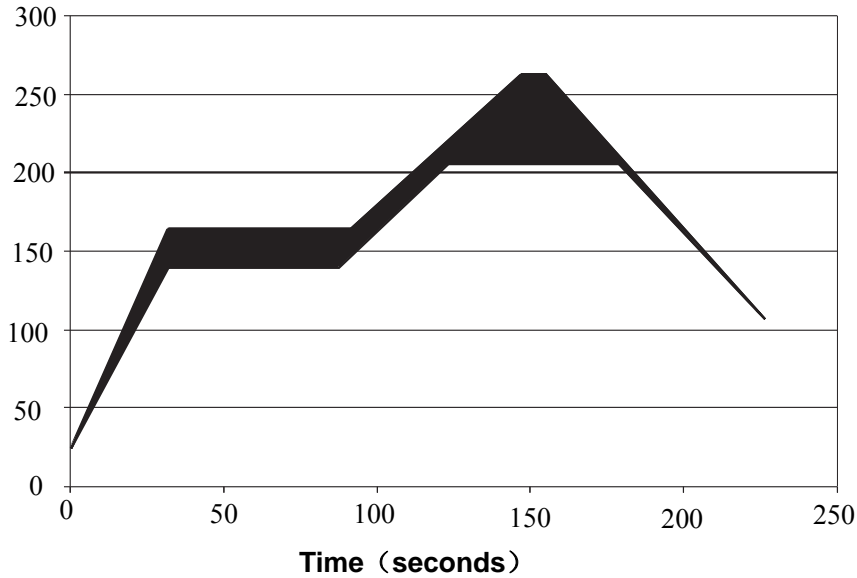
Suggested Pad Layout



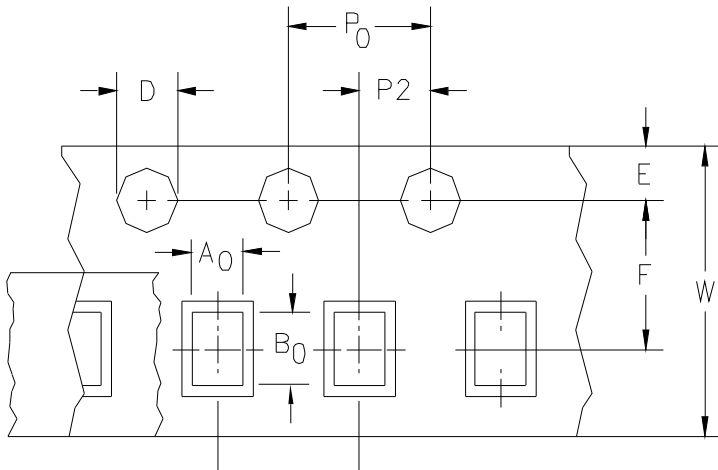
Symbol	Dimension	Unit
A	0.95	mm
B	0.65	
C	1.35	

Solder Reflow Recommendations

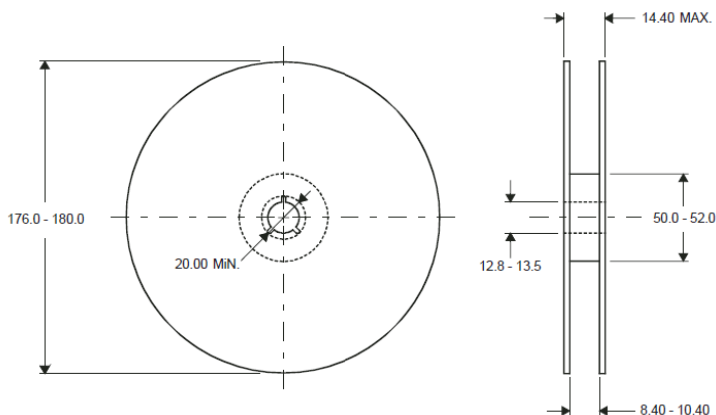
Temperatures (°C)



Package Information



Dimension	Typical	Unit
A0	1.00	mm
B0	1.90	
D	1.55	
P0	4.00	
P1	4.00	
P2	2.00	
E	1.75	
F	3.50	
W	8.00	



DIMENSIONS ARE: MILLIMETERS