

ESR05L

LOW CAPACITANCE TVS ARRAY

Description

The ESR05L is a transient voltage suppressor designed to protect components, which are connected to data and transmission lines against ESD. It clamps the voltage just above the logic level supply for positive transients and to a diode drop below ground for negative transients.

Features

- 200 W Peak Pulse Power per Line (tp=8/20us)
- Low Clamping Voltage
- ESD Protection > 25 kilovolts
- Unidirectional Configuration
- Low Leakage Current
- PROTECTS 2 I/O PORTS & POWER

IEC compatibility

IEC61000-4-2(ESD): Air – 15kV, Contact – 8kV

IEC61000-4-4(EFT): 40A – 5/50ns

IEC61000-4-5(Surge):24A,8/20µs Level

2(Line-Gnd)&level 3(Line-Line)

- RoHS compliant package

Mechanical Data

- Molded JEDEC SOT-143 Package
- Approximate Weight: 5 milligrams
- Lead-Free Pure-Tin Plating (Annealed)
- Solder Reflow Temperature: Pure-Tin - Sn, 100:

260-270°C

- 8mm Tape and Reel Per EIA Standard 481
- Flammability Rating UL 94V-0

Applications

- Ethernet 10/100 base
- Fire Wire
- USB Interface
- Wireless Communications

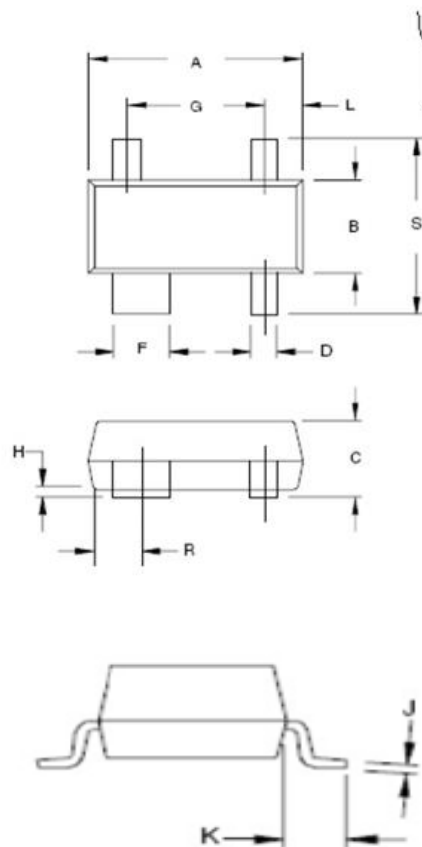
Packing & Order Information

3,000/Reel



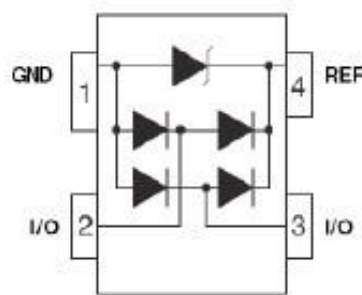
**RoHS
COMPLIANT**

SOT-143 package Information



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.110	0.120
B	1.20	1.39	0.047	0.055
C	0.84	1.14	0.033	0.045
D	0.39	0.50	0.015	0.020
F	0.79	0.93	0.031	0.037
G	1.78	2.03	0.070	0.080
H	0.013	0.10	0.0005	0.004
J	0.08	0.15	0.003	0.006
K	0.46	0.60	0.018	0.024
L	0.445	0.60	0.0175	0.024
R	0.72	0.83	0.028	0.033
S	2.11	2.48	0.083	0.098

Graphic symbol



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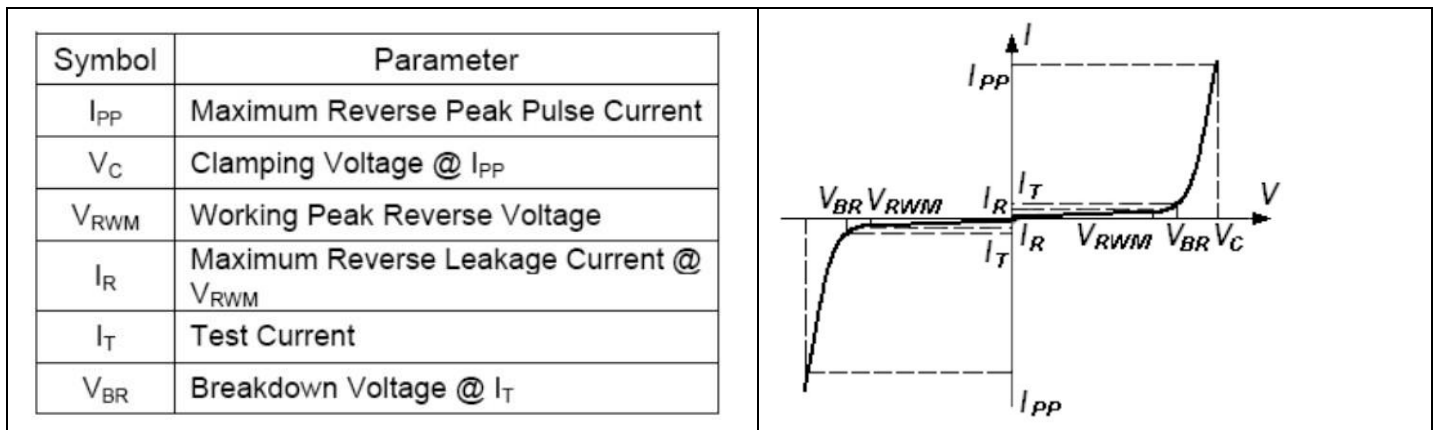
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute ratings (limiting value)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power ($t_p = 8/20\mu s$)	200	W
IP	Peak Pulse Current ($t_p = 8/20\mu s$)	6	A
T _J	Operating Voltage	-55 to +125	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _L	Lead Solder Temperature – Maximum (10 Second Duration)	260	°C

Electrical Characteristics Per Line @25°C Unless Otherwise Specified

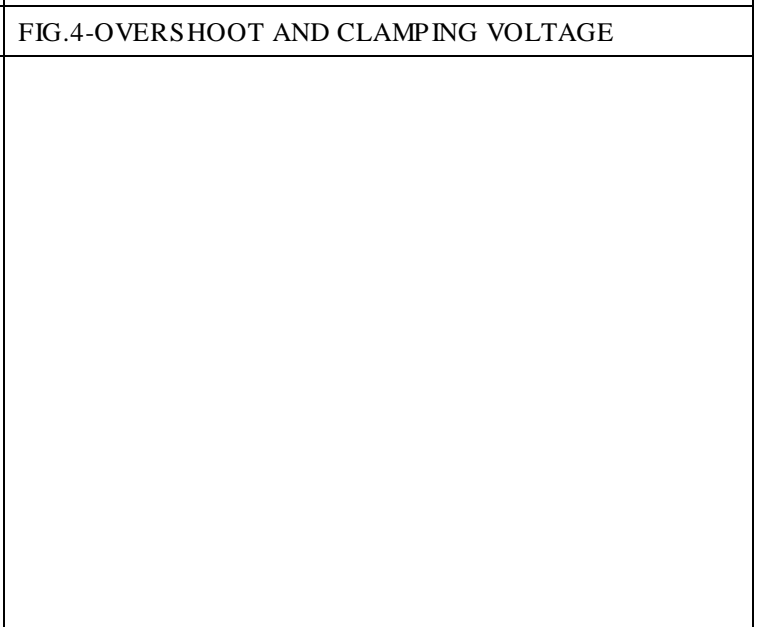
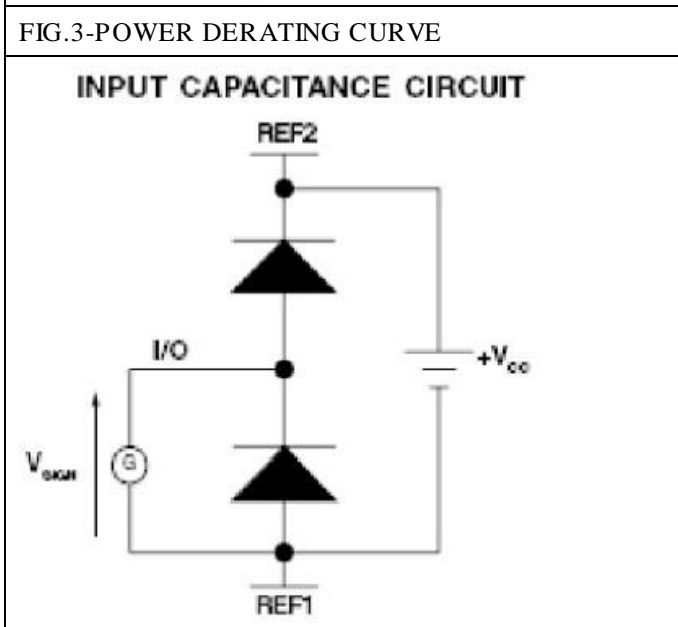
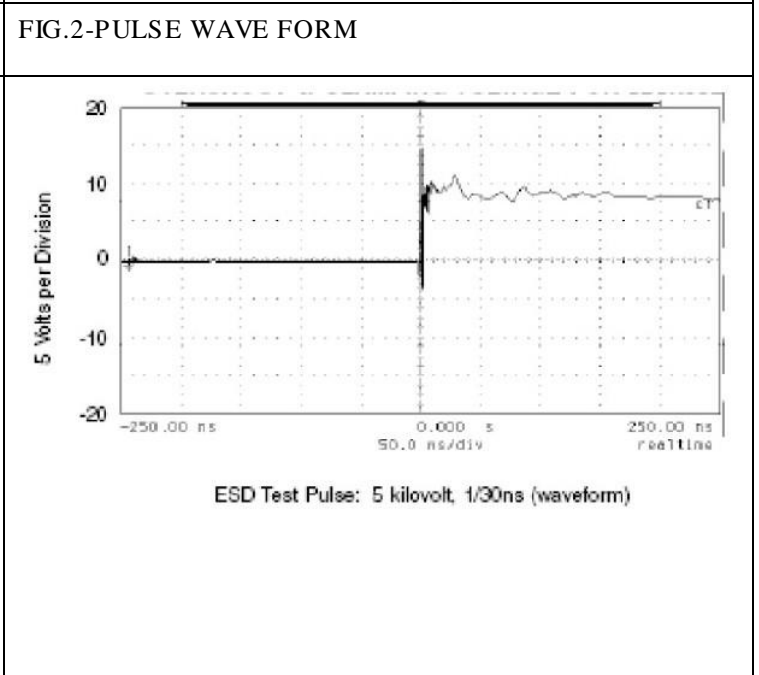
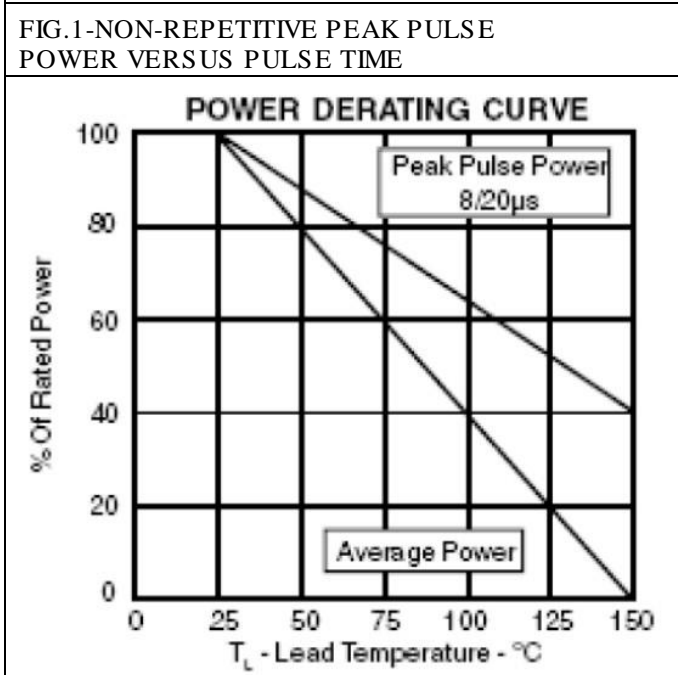
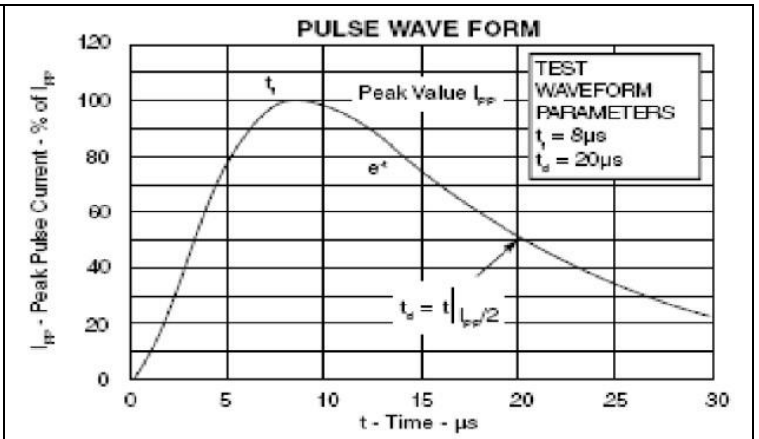
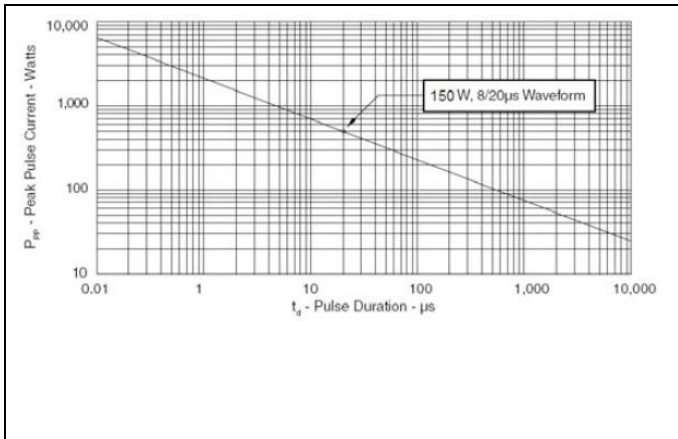
PART NUMBER	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MINIMUM CLAMPING VOLTAGE	MINIMUM CLAMPING VOLTAGE	MINIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE (See Note 1)
	V _{WM} V	@ 1A V _(BR) V	(Fig.2) @ 1P=1A V _C V	(Fig.2) @ 8/20μs V _C @ I _{PP}	@ V _{WM} I _D Ma	@ 0V,1MHz C pF
ESR05L	5	6	9.8	15.4V@10A	5	3



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Typical Device Characteristics



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