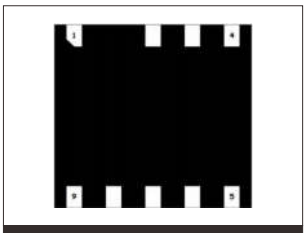
SELC2504P9

HighPower Tvs Diode Array For Ethernet Interface

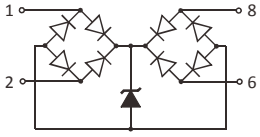
DESCRIPTION

The SELC2504P9 is a design which includes surge rated diode arrays to protect high speed data interfaces in an electronic systems. The SELC2504P9 has been specifically designed to protect sensitive components which are connected to data and transmission lines from over-voltage damage and latch-up caused by Electrostatic Discharging (ESD), Electrical Fast Transients (EFT), Lightning, and Cable Discharge Event (CDE).

SELC2504P9 is a unique design which includes surge rated,low capacitance steering diodes and a unique design of clamping cell which is an equivalent TVS diode in a single package . During transient conditions, the steering diodes direct the transient to either the power line or to the ground line.The internal unique design of clamping cell prevents over-voltage on the power line, protecting any downstream components.



DFN2626P9 PACKAGE



PIN CONFIGURATIONS

FEATURES

>1000 Watts Peak Pulse Power Per Line (tp=8/20μs)
>Protects Two I/O Lines (Pairs)
>Low clamping voltage
>Working voltages : 2.5V
>Low leakage current

APPLICATIONS

>10/100/1000 Ethernet
>Central Office Equipment
>LVDS Interfaces
>MagJacks / Integrated Magnetics
>Notebooks / Desktops / Servers
>ATM Interfaces

IEC COMPATIBILITY

>IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
>IEC61000-4-4 (EFT) 40A (5/50ns)
>IEC61000-4-5 (Lightning) 50A (8/20μs)

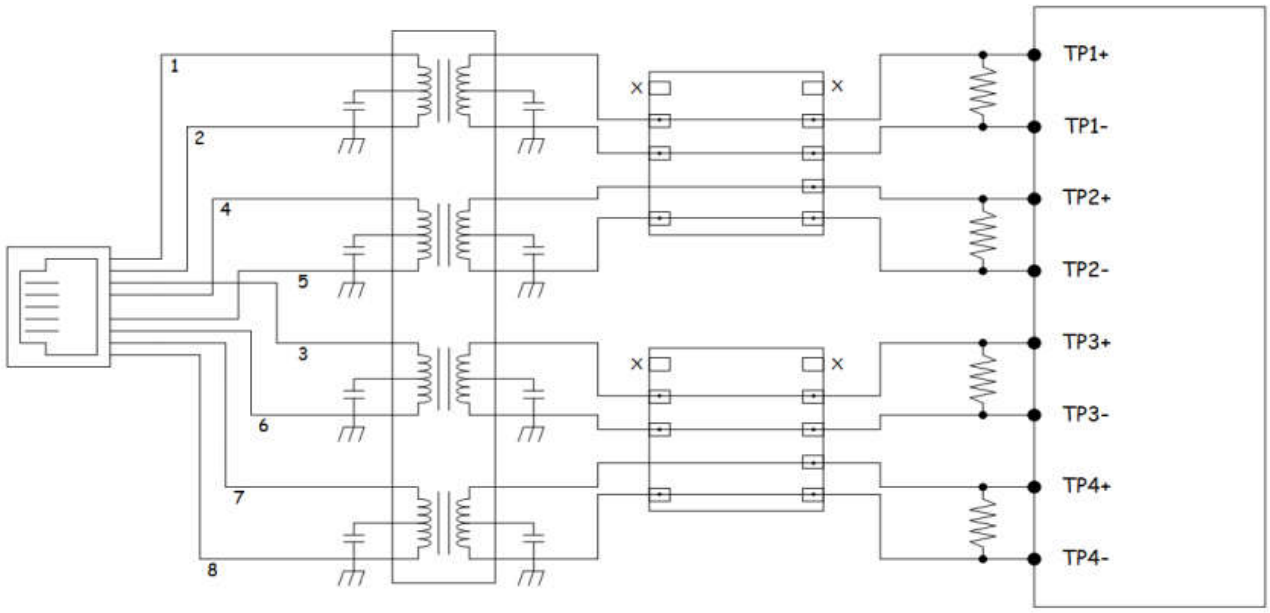
MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20μs waveform)	P_{PP}	1000	Watts
Lead Soldering Temperature	T_L	260(10 sec.)	°C
Operating Temperature Range	T_J	-40~125	°C
Storage Temperature Range	T_{STG}	-55~150	°C

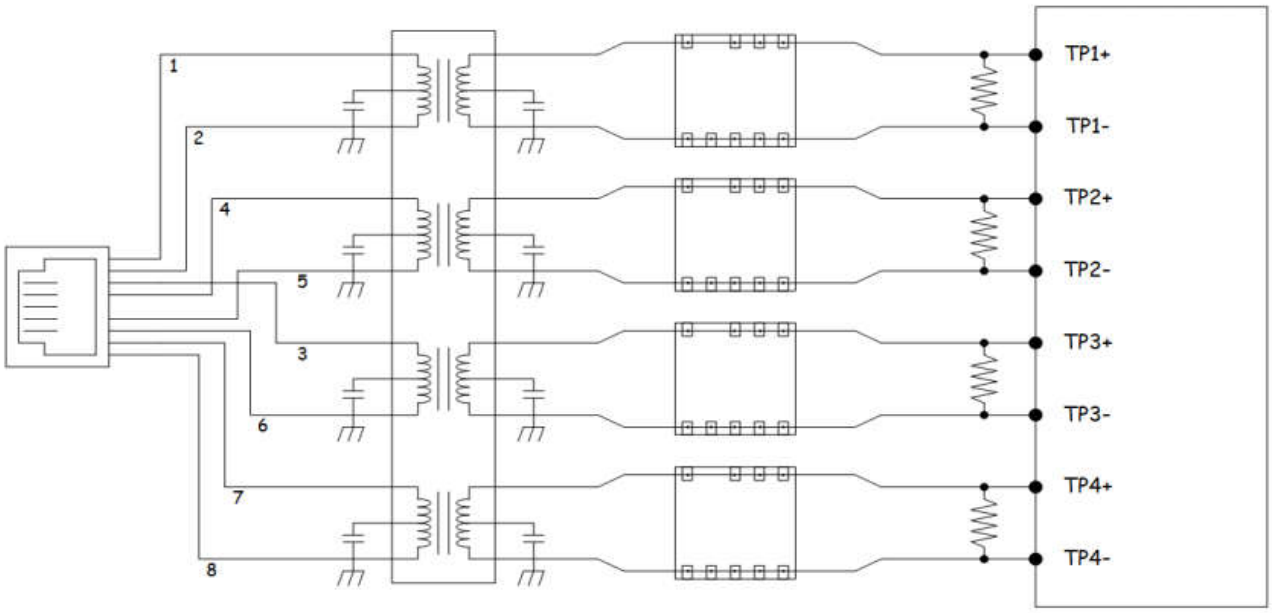
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED

PART NUMBER	DEVICE MARKING	PATH	V_{RWM} (V) Max.	V_{BR} (V) Min.	I_T (mA)	V_C @5A Max.	V_C Max.	V_C @A	I_R (uA) Max.	C_T (pF) Typ.
SELC2504P9	LC25 04P9	I/O to I/O	2.5	3.0	1	8.0	21.0	30.0	0.05	1.3
		Line to Line				6.0	25.0	40.0		2.6

APPLICATION INFORMATION



I/O to I/O Schematic Diagram for Gigabit Ethernet Protection



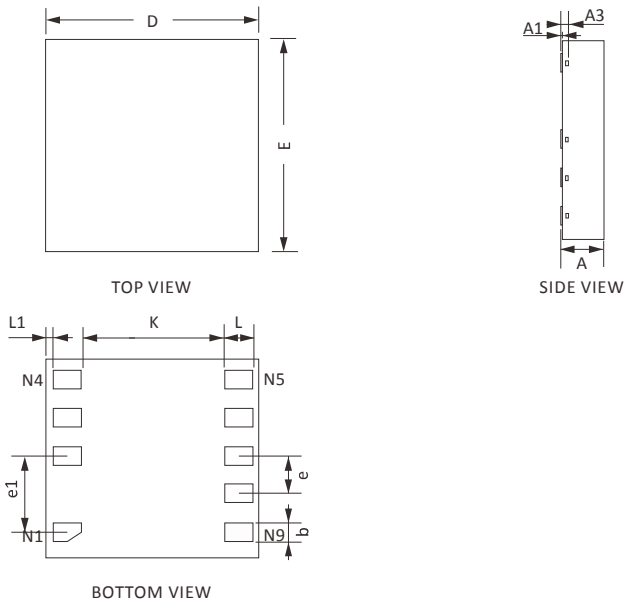
Line to Line Schematic Diagram for Gigabit Ethernet Telcordia GR-1089 Intra-Building Protection

(PHY Operating Temp <= 90°C)

SOT-23 PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.60	0.020	0.024
A1	−0.004	0.046	0.000	0.002
A3	0. 110REF.		0. 004REF.	
D	2.500	2.700	0.098	0.106
E	2.500	2.700	0.098	0.106
b	0.200	0.300	0.008	0.012
e	0.500BSC.		0.020BSC.	
e1	1.000BSC.		0.039BSC.	
K	1.750REF.		0.069REF.	
L	0.274	0.426	0.011	0.017
L1	0.075REF.		0.003REF.	

NOTES
1. Controlling dimension: inches.
2. Dimensions are exclusive of mold flash and metal burrs.



ENVIRONMENTAL CHARACTERISTICS

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

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SELC2504P9	DFN2626P9	3000PCS	7"

CONTACT US

Headquarters
Room 43A, Block C, Electronic and Technology Building, Shennan Road, Futian District, Shenzhen
China

Hotline
+86-0755-83239646

Web
Http://www.szshaoxin.com

By Telephone
General: +86-0755-83239646

By Fax
+86-0755-83239644