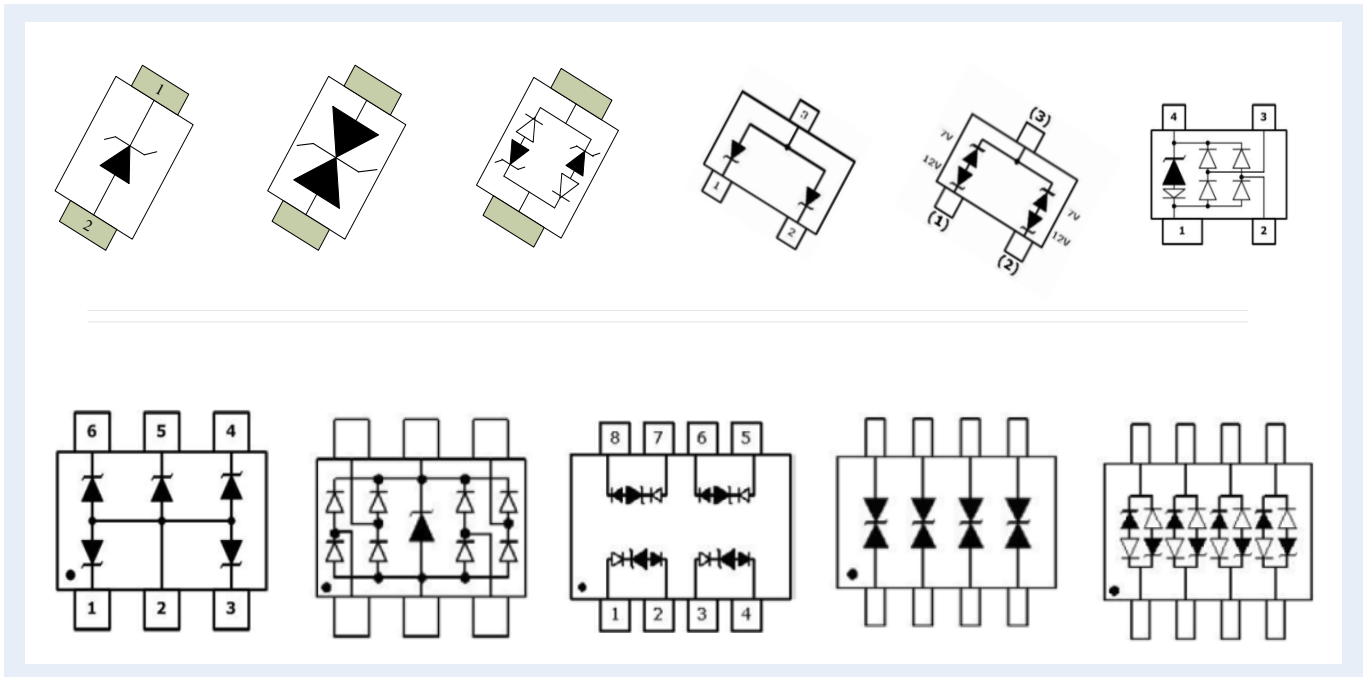


Transient Voltage Suppressor Array

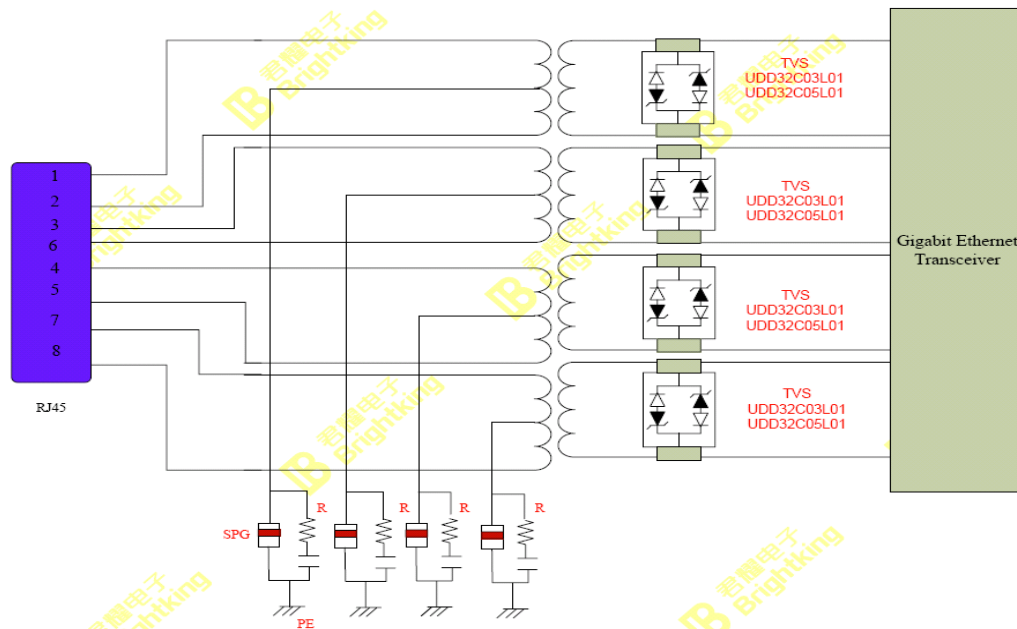
TVS diode array is a type of fast ESD suppressing device, can limit, or clamp ESD or surge voltage within a safe range in picoseconds, protecting circuits from damage.



Features:

- Be a clamping component specially used for ESD or low surge voltage protection
- Fast response time :less than 0.5ns
- Voltage specification including: 2.8V、3V、5V、12V、15V、24V、36V
- Low breakdown voltage
- Small, intensive integration can realize multiple data cable protection
- Low capacitance,0.4pF, ideal to protect high frequency data cable
- Low leakage is uA level or lower
- Various package , 0402、0603、SOD-323、SOT323、SOT23、SOT-143、SOT23-6L、SOT-363、SOIC-08、SOIC-14、SOIC-16 realize the flexible solution in different site and space
- Focus on low power source or low frequency telecommunication

Ethernet interface TVS ARRAY RJ45 application as below:



TVS diodes have a wide range of applications in semiconductor and sensitive device, such as telecommunication 、 computer device 、 consumer products 、 vehicles/industry electronic 、 power source/ medical treatment products , to keep inner IC away from ESD or low pulse surge.

Applications:

- Telecommunication :mobile phone ,circuit card , fax machine , XDSL (ADSL、 ISDN、 HDSL、 VDSL)、 SLIC、 PBX、 DDN、 Ethernet , optical transmitter and receiver, photoelectric transducer, SDH、 MODE、 wireless AP , main distributing frame, T1/E1, LNB satellite set-top box, beehive/cordless phone , LCD displayer , program access , CATV wire television/coaxial cable, Little Smart station , switch, micro-message process reset or I/O protection 、 logical circuit protection

- Computer device: PC, RS232/RS422/IEEE1394, POS device , USB interface circuit , audio card, keyboard, I/O interface , 488 interface card, printing machine and scanner ,paper machine, optical sensor, hard driver , Vcc protection, notebook, LCD displayer , audio card , keyboard , I/O interface ,charger , PCMCIA card , CRT , crystal displayer , RF circuit , PC card and slot , ASIC protection
- Consumer product: digital camera, PDA, MP3,MP4,vidicon, camera, mobile phone, CDMA , SIM card protection circuit , solar water heater micro control system, water heater, gas-oven , air-condition, fridge, water dispenser, support system, portable device, Camcorder, CD player, MD player, smart card/ reader ,loudspeaker, microphone
- Vehicle / industry electronic: ECU protection, multiple I/O cable, ABS system, fare register, air-condition control system, air bag system , audio system , navigation system, flexible sensor and actuator ,catch fire circuit , motor control board, vehicle phone, vehicle pc ,motor, fire alarm device , laser diode protection, FETS protection, smoke detector, flame igniter.

Power source/medical treatment: telecommunication source, switch power supply, power regulator, UPS, multi-function meter, Power SPD, electronic ballast, AC/DC converter, charger, instruments and meters, source outlet

Brightking's TVS diode array components are both RoHS and WEEE compliant, and meet the following international standards and certifications : IEC61000-4-5、IEC61000-4-2、 IEC61000-4-4

TVS diode array selection principle:

Device	Marking	$V_{RWM}(V)$	$V_B(V)$	I_T (mA)	$I_R(\mu A)$	$V_C@1A$	$V_C@I_{PP}$	I_{PP} (A)	$C_T(pF)$
		Max.	Min.		Max.	Max.	Max.		typ.
UDD32C03L01	AC	3	4	1	20	5.15	13.9	15	0.8
UDD32C05L01	BC	5	6	1	5	9.8	18.3	17	0.8
UDD32C12L01	DC	12	13.3	1	1	19.0	28.6	11	0.8

V_{RWM}	Reverse stand-off voltage or working voltage	V_C	Maximum clamping voltage
I_{RM}	Reverse maximum leakage current	I_{PP}	8/20 μ S Surge current capability
V_{BR}	Break down voltage at 1mA	C_{type}	Typical capacitance

- V_{RWM} : V_{RWM} must be no less than maximum working voltage
- V_C : clamping voltage must be less than maximum transient peak voltage of the protected circuit can withstand
- For high-frequency data transfer, low capacity product UDD32C03/05L01 suggested.