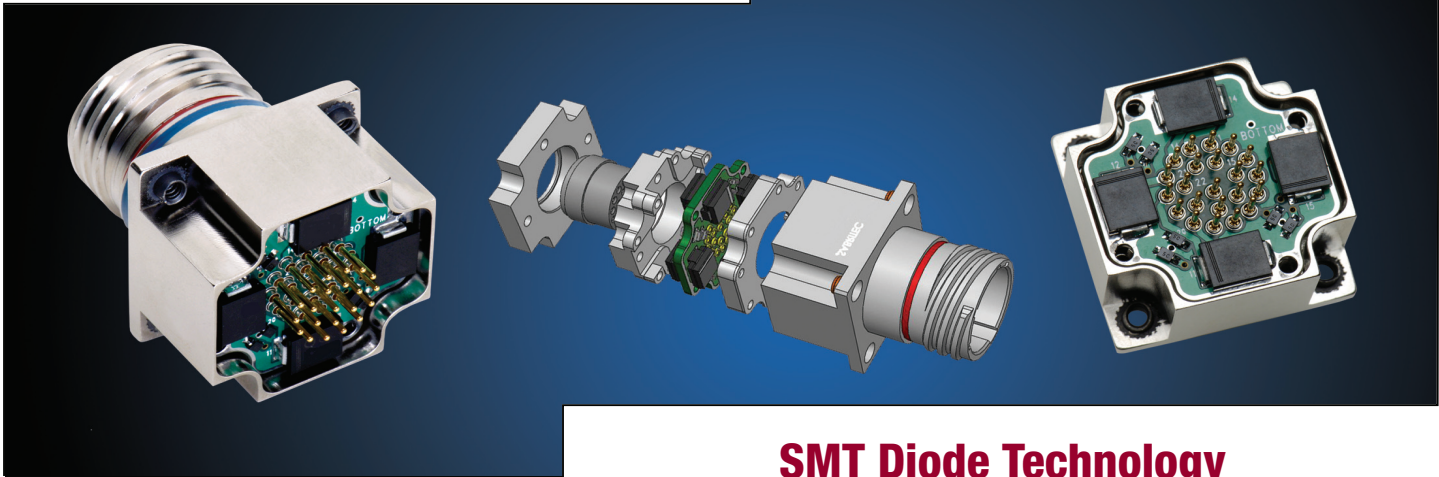


# EMP Surface Mount Diode Connector Transient Voltage Suppression (TVS)



## SMT Diode Technology

Sabritec offers a complete line of transient protection solutions embedded within the connector shell utilizing surface mount technology (SMT) diodes. The incorporation of SMT components can offer space and weight savings based on connector application requirements.

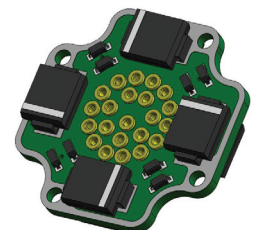
### Benefits

- Significant reduction in board space and connector weight
- Low incremental surge resistance
- Fast response time, typically less than 1.0ps
- Low zener diode impedance values
- Better thermal conductivity for high power dissipation requirements
- Increased flexibility in design limits
- Increased mean time between failures (MTBF)
- Improved shock and vibration resistance
- No ground spring connector from cathode lead to connector ground plane
- Addresses issues related to limited source availability of axially leaded components

EMI/RFI and EMP protection can both be integrated into a connector with only a small increase in length over the non-filtered version. Sabritec's design approach for diode connectors is unique, mounting diodes around the outside of the contact arrangement on a multi-layer circuit board within the connector.

Sabritec uses standard military or commercial grade diodes, located outside the contact arrangement to allow for size and shape options so the power/pulse width capability is preserved. The circuit traces from the contact to the diode are kept as wide as possible and are sandwiched between ground planes, providing a very low characteristic impedance strip line configuration thus eliminating any "ringing" of pulse response.

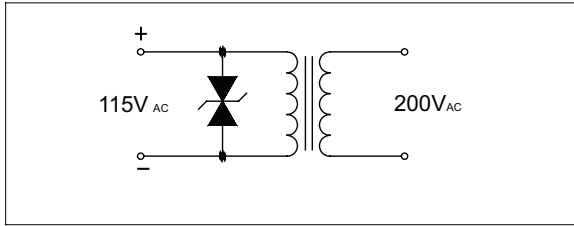
Specifications	
Case Packaging	Mold Plastic or Glass Passivated
Operating Temperature	-55°C to +150°C
Peak Pulse Power	1,500 to 6,000 Watts for 10/1000µs From 500 Watts for 8/20µs
Stand-Off Voltage	5.0 to 250V
Peak Pulse Current	1 to 350 Amps
<b>Special Cell Surface Mount TVS Diode</b> (High Current Transient Voltage Suppressor (TVS))	
Peak Pulse Power	20,000 Watts
Peak Pulse Current	600 to 2,000 Amps
Stand-Off Voltage	5 to 22V



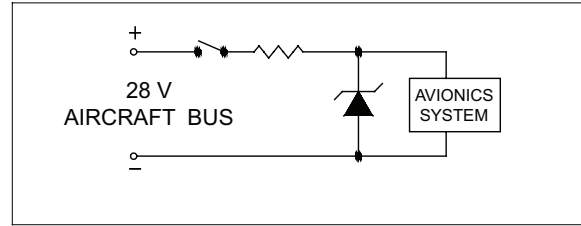


# Surface Mount Transient Voltage Suppressor

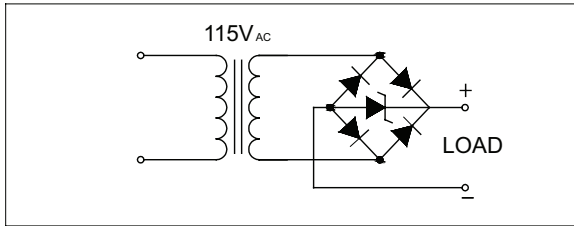
High Speed/Video Line/Integrated Circuit/Power Supply Protection



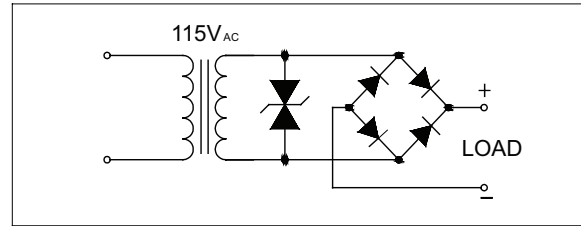
Cicut Protection from Overvoltage Supply



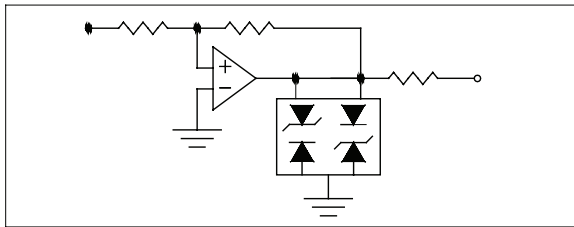
28VDC Power Supply Protection



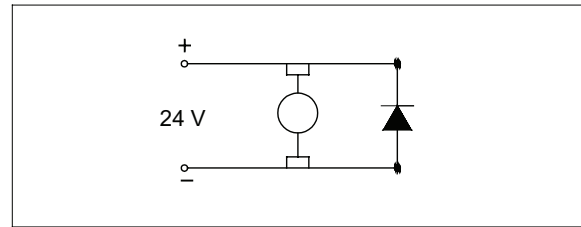
115VAC Power Supply Protection



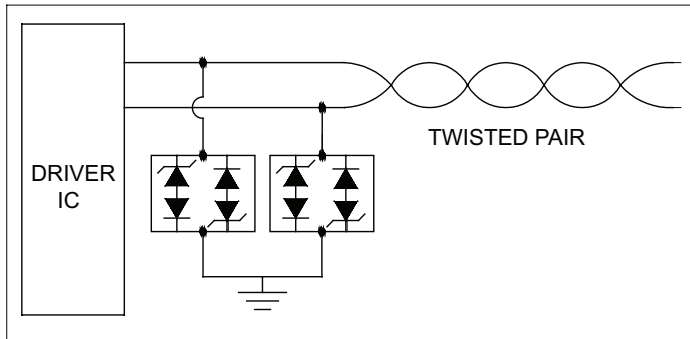
AC Supply Protection



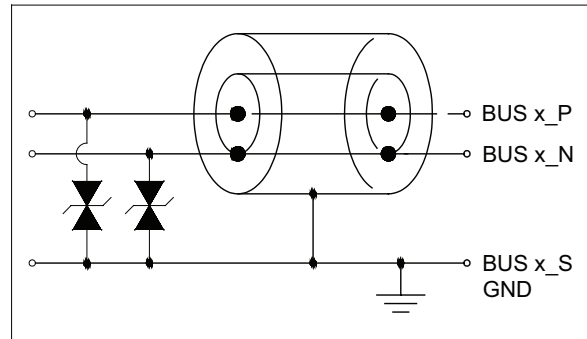
High Speed Data Protection



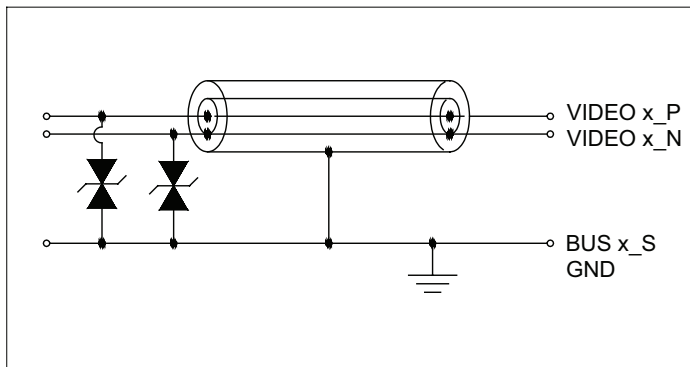
DC Motor Protection



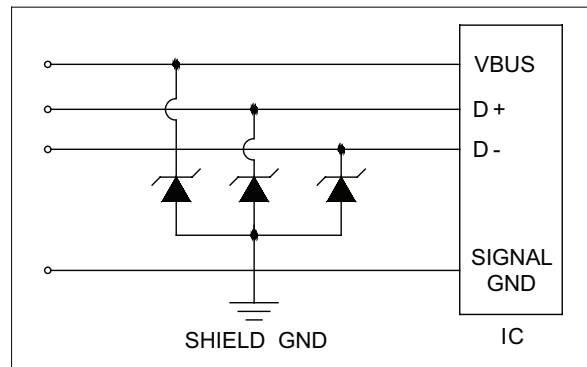
High Speed RS485 ESD Protection



MILBUS 1553B Protection



Video Line Protection



Integrated Circuit (IC) Protection

**Sabritec**  
 17550 Gillette Ave, Irvine  
 CA 92614, USA  
 t: +1 (949) 250-1244  
 f: +1 (949) 250-1009  
 e: customerservice@sabritec.com

FOR FURTHER INFORMATION VISIT [www.sabritec.com](http://www.sabritec.com)