OBJECTIVE

Universal Serial Bus (USB) 2.0 provides ports 480Mbps of data transfer and 5V of power up to 500mA. As a hot-pluggable interface, USB typically protection against ESD and short circuits.

BENEFIT

The integrated TVS Diode solution is designed to protect the interface against surge events by using one device (PLR0504F) to protect 4 datalines and the Vcc Bus.

COMPLIANCE

- IEC 61000-4-2 ±8kV Contact, ±15kV Air Discharge
- IEC 61000-4-4 EFT 40A, 5/50ns
- IEC 61000-4-5 Surge Secondary Lightning, 5A @ 8/20μs

SOLUTION

- 1 x PLR0504F in SC70-6L Package
- Stand-Off Voltage $V_{WM}$: 5.0 Volts
- Breakdown Voltage $V_{BMIN}$: 6.0 Volts
- $V_c @ I_c$: 25V @ 5A
- Leakage Current $I_r$: 3μA
- Max. Capacitance: 1.9pF

ALTERNATE RECOMMENDATIONS

- 1 x SRV05-4LC