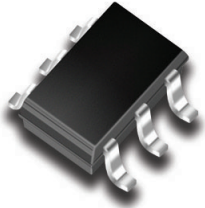


INTERFACE APP NOTE
USB 2.0 Protection

SC70-6L PACKAGE
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 V_{CC} Bus.

COMPLIANCE

- IEC 61000-4-2 $\pm 8\text{kV}$ Contact, $\pm 15\text{kV}$ Air Discharge
- IEC 61000-4-4 EFT 40A, 5/50ns
- IEC 61000-4-5 Surge Secondary Lightning, 5A @ 8/20 μs

SOLUTION

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

ALTERNATE RECOMMENDATIONS

- 1 x SRV05-4LC

