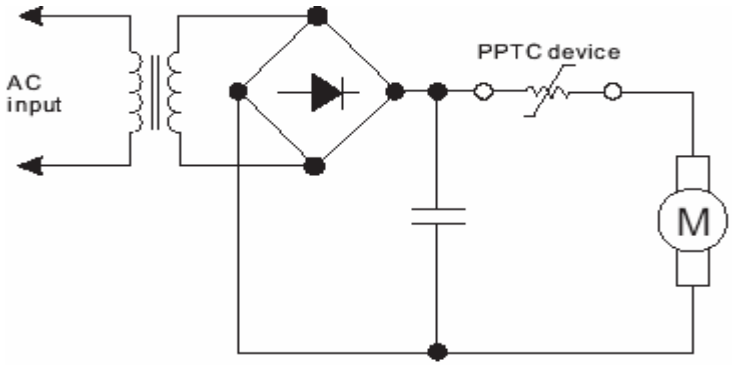
PPTC Thermistor Application Note

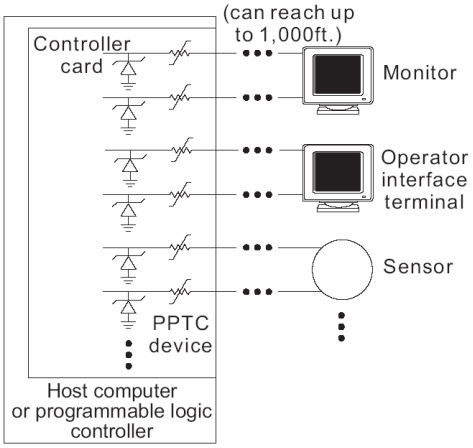
■ General electronic applications

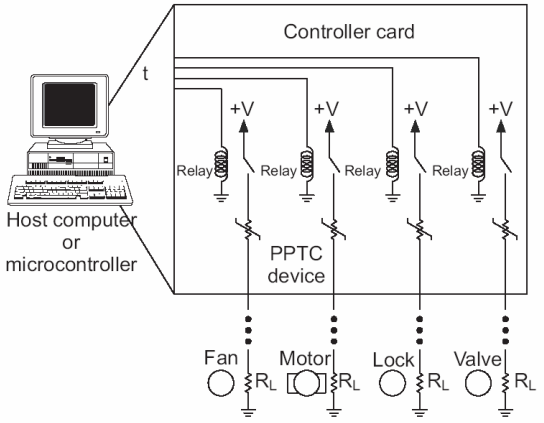
● Motors, fans and blowers

If the motors are under overload, the extremely fine wire will be damaged by overheating. Install of PPTC in motors and blowers to prevent from overheating if overloaded.



● Industrial process controls

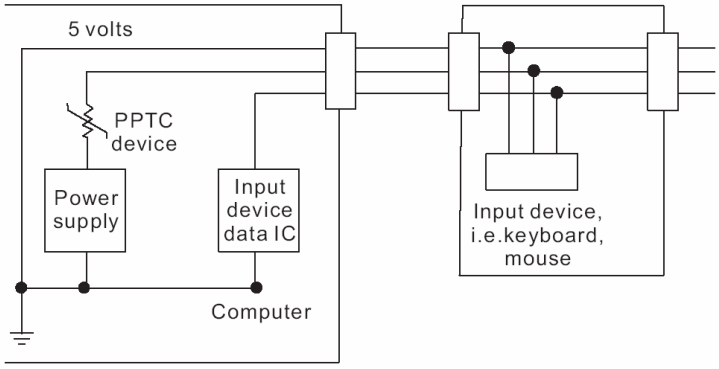




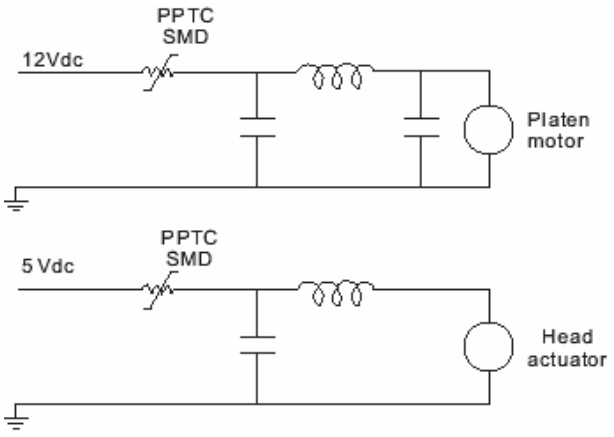
■ Computer applications

● Keyboard/ mouse

The operating current of keyboard/ mouse are usually from 200 to 500 mA, but in a short circuit the current will increase many times. Using PPTC in series between the connector and host power supply will limit the current cut the keyboard/ mouse port to the specified maximum.



- **Hard disk driver**



■ Battery applications

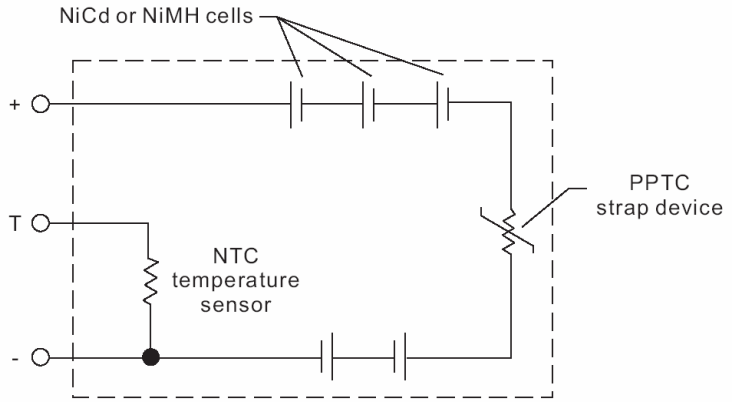
- **Rechargeable battery packs**

Using strap type PPTC in series within battery pack will avoid the followed faults occurring.

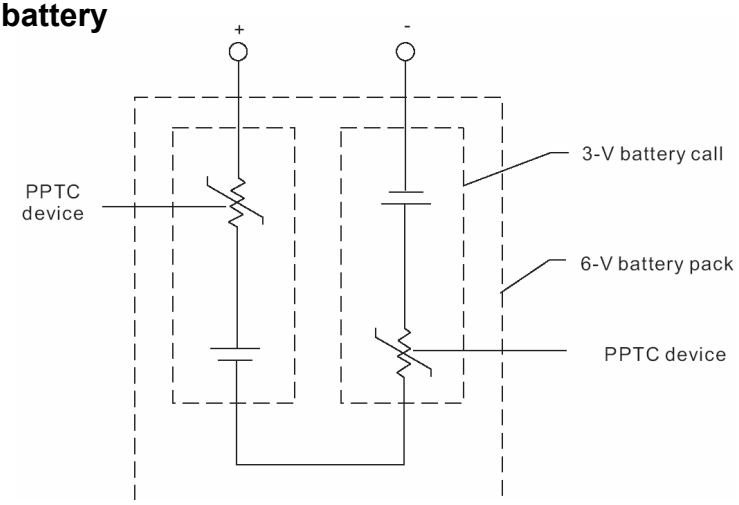
a. Shorting of the positive and negative terminals.

b. A runaway charging condition in which the charger during charging, fails to stop supplying current to the package when it is fully charged.

c. Using the wrong charger or the pack is reverse changed.



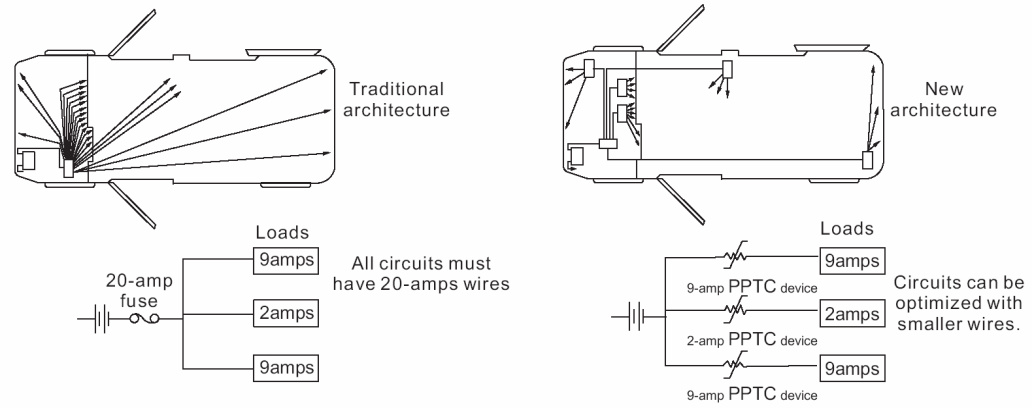
- **Prismatic lithium battery**



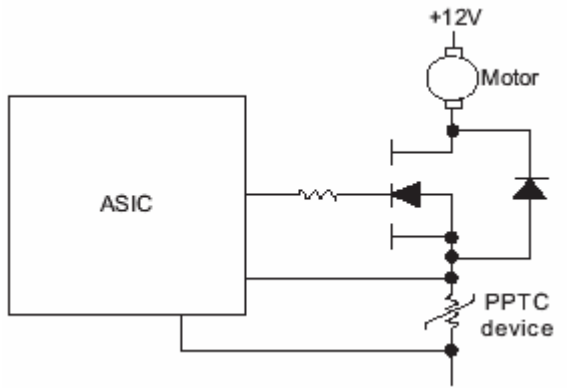
■ Automotive applications

● Automotive harness

The conventional solution in wire harnesses is that groups similar circuits together and protects them with a single fuse. In order to limit risk of fire, the wire high current carrying capability, and the oversized wire is commonly used. If anyone circuit under the same fuse short, the other circuits will all stop. PPTC devices can be installed to each circuit, which allows the optimum wire to be selected. And the other hand, the circuits don't have to be through the central fuse box, thus reducing the length of wire required.



● Automotive electronics



■ Telecom applications

● Network equipment

The telecom networks are potentially exposed to AC power crosses, thunder hazard, induced over current in the networks. The PPTC devices which are in series with line feed resistor and in paralleled with MOV will protect against these faults and prevent network equipments from damage.