

# MEMORY PROTECTION DEVICES, INC.

an ISO 9001:2000 company

Engineers and designers of products should review all the basic requirements like:

- Stationary or portable - indoor or outdoor use?
- Possibility of shock, vibration, and extreme temperatures?
- Storage conditions and expected shelf life?

## Design considerations

1. Features
  - a. Type and quantity of batteries
  - b. Style of connection (e.g. through hole, surface mounts, wire leads)
  - c. Polarization
  - d. Cover
  - e. Style of contact (e.g. spring, blade, bump)
  - f. Case markings
  - g. Packaging
2. Performance
  - a. Retention strength
  - b. Insertion force
  - c. Removal technique and force
  - d. Contact insertion force
  - e. Contact removal force
  - f. Security of contact (how much wiggling should there be?)
  - g. Cover retention
  - h. Cover life
  - i. Lifetime of holder
  - j. Expected number of insertions and removals
3. Environment
  - a. Operating environment (e.g. temperature, moisture, vibration)
  - b. Manufacturing environment (e.g. surface mount oven)
  - c. Housing material
  - d. Contact material
  - e. Organics
4. Regulations
  - a. UL
  - b. CE
  - c. RoHS
  - d. FDA
5. Manufacturability
  - a. Draft (general and action-specific)
  - b. Wall thickness (even)
  - c. Snaps
  - d. Bosses
  - e. Texture
  - f. Weld line locations
  - g. Sink marks
  - h. Feature intersections (e.g. ribs)



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