
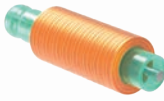





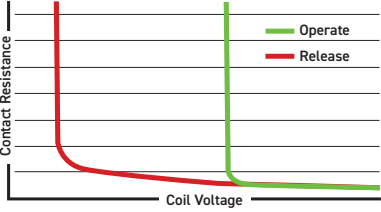

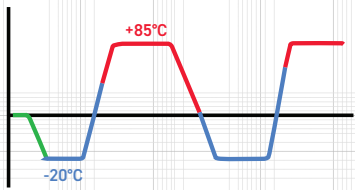

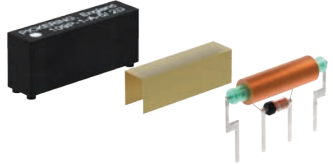



| Key Benefit | Pickering Reed Relays | Typical Industry Reed Relays | |
|---|---|--|--|
| <p>1</p> <p>Instrumentation Grade Reed Switches</p> | Instrumentation Grade Reed Switches with vacuum sputtered Ruthenium plating to ensure stable, long life up to 5x10E9 operations. | Often low grade Reed Switches with electroplated Rhodium plating resulting in higher, less stable contact resistance. |  |
| <p>2</p> <p>Formerless Coil Construction</p> | Formerless coil construction increases the coil winding volume, maximizing magnetic efficiency, allowing the use of less sensitive reed switches resulting in optimal switching action and extended lifetime at operational extremes. | Use of bobbins decreases the coil winding volume, resulting in having less magnetic drive and a need to use more sensitive reed switches which are inherently less stable with greatly reduced restoring forces. |   Pickering former-less coil Typical industry coil wound on bobbin |
| <p>3</p> <p>Magnetic Screening</p> | Mu-metal magnetic screening (either external or internal), enables ultra-high PCB side-by-side packing densities with minimal magnetic interaction, saving significant cost and space. Pickering Mu-Metal magnetic screen - interaction approx. 5% | Lower cost reed relays have minimal or no magnetic screening, resulting in magnetic interaction issues causing changes in operating and release voltages, timing and contact resistance, causing switches to not operate at their nominal voltages. Typical industry screen - interaction approx. 30% |   X-Ray of Pickering mu-metal magnetic screen X-Ray of typical industry magnetic screen |
| <p>4</p> <p>SoftCenter™ Technology</p> | SoftCenter™ technology, provides maximum cushioned protection of the reed switch, minimising internal lifetime stresses and extending the working life and contact stability. | Transfer moulded reed relays (produced using high temperature/pressure), result in significant stresses to the glass reed switch which can cause the switch blades to deflect or misalign leading to changes in the operating characteristics, contact resistance stability and operating lifetime. |   Pickering soft center protection of the reed switch Typical industry thermo-setting hard moulded protection of the reed switch |
| <p>5</p> <p>100% Dynamic Testing</p> | 100% testing for all operating parameters including dynamic contact wave-shape analysis with full data scrutiny to maintain consistency. | Simple dc testing or just batch testing which may result in non-operational devices being supplied. | <p>Dynamic Contact Resistance Test</p>  |
| <p>6</p> <p>100% Inspection at Every Stage of Manufacturing</p> | Inspection at every stage of manufacturing maintaining high levels of quality. | Often limited batch inspection. |  |
| <p>7</p> <p>100% Thermal Cycling</p> | Stress testing of the manufacturing processes, from -20°C to +85°C to -20°C, repeated 3 times. | Rarely included resulting in field failures. |  |
| <p>8</p> <p>Flexible Manufacturing Process</p> | Flexible manufacturing processes allow quick-turn manufacturing of small batches. | Mass production: Usually large batch sizes and with no quick-turn manufacturing. |  |
| <p>9</p> <p>Custom Reed Relays</p> | Our reed relays can be customized easily, e.g. special pin configurations, enhanced specifications, non-standard coil or resistance figures, special life testing, low capacitance, and more. | Limited ability to customize. |  |
| <p>10</p> <p>Product Longevity</p> | Pickering are committed to product longevity; our reed relays are manufactured and supported for more than 25 years from introduction, typically much longer. | Most other manufacturers discontinue parts when they reach a low sales threshold; costing purchasing and R&D a great deal of unnecessary time and money to redesign and maintain supply. |  |