CRYSTAL CAN RELAY 10 AMPERE DC COIL

## Product Description

The economical approach to high current switching in a relay design for commercial and military applications. Through unique design innovations, this device incorporates an optimised magnetic structure and massive contact switching paths in less than 0.65 cubic inches. With proven switching characteristics of 10 amperes in excess of 100.000 operations under all environments, it performs in a wide variety of switching applications.
The following construction features ensure the highest reliability in extreme environments:

- All welded relay construction
- Cleaning and sealing techniques ensures maximum internal cleanliness
- 10 amperes switching
- $\quad 2$ form C, DPDT contacts, special metal alloy with gold plating


## Series Types

- 2T-7188 2 form C, DPDT

Environmental and Physical Specifications

| Temperature (Ambient) | $-65^{\circ} \mathrm{C}$ to $+125^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Shock | $100 \mathrm{~g}, 6 \mathrm{msec}$. |
| Vibration (sinusoidal) | $20 \mathrm{~g}, 10$ to 2000 Hz |
| Acceleration | 17 g |
| Sealing | All welded, Hermetic |
| Weight | $2,0 \mathrm{oz} .(56,70$ grams) max. |



Electrical Characteristics (over the Temperature range. Unless otherwise noted)

| Coil Data | See Typical Characteristics chart |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Contact Rating | Type Load |  | ct Load | Cycles min. |
| (Note: All ratings with grounded case) | Resistive <br> Inductive <br> Lamp <br> Motor | $\begin{array}{\|l\|} \hline 10 \mathrm{~A} / 28 \mathrm{Vdc} \\ 5 \mathrm{~A} / 115 \mathrm{Vac}, 400 \mathrm{~Hz} \\ 3 \mathrm{~A} / 115 \mathrm{Vac}, 60 \mathrm{~Hz} \\ 6 \mathrm{~A} / 28 \mathrm{Vdc}(200 \mathrm{mH}) \\ 1 \mathrm{~A} / 28 \mathrm{Vdc} \\ 3 \mathrm{~A} / 28 \mathrm{Vdc} \\ \hline \end{array}$ |  | $\begin{aligned} & 50.000 \\ & 50.000 \\ & 50.000 \\ & 50.000 \\ & 50.000 \\ & 50.000 \\ & \hline \end{aligned}$ |
| Contact Resistance | 0,01 $\Omega$ max. initial |  |  |  |
| Operate Time | 15,0 msec. max. at $25^{\circ} \mathrm{C}$ |  |  |  |
| Release Time | $15,0 \mathrm{msec}$. max. at $25^{\circ} \mathrm{C}$ |  |  |  |
| Contact Bounce | $5,0 \mathrm{msec}$. max. at $25^{\circ} \mathrm{C}$, normally close contacts |  | $5,0 \mathrm{msec}$. max. at $25^{\circ} \mathrm{C}$, normally open contacts |  |
| Dielectric Strength | 1.000 Vrms min., 60 Hz , all points, 500 Vrms min. between coil to case, at sea level |  |  |  |
| Insulation Resistance | $1.000 \mathrm{M} \Omega \mathrm{min}$. all points at 500 Vdc |  |  |  |
| Sensitivity | 1,9 W typical at nominal rated coil voltage, at $25^{\circ} \mathrm{C}$ |  |  |  |

Typical Characteristics (over the Temperature range. Unless otherwise noted)

| Mounting \& Terminal Styles |  |  |  |  |  | Coil Voltage Vdc |  | CoilResistance$\Omega$$\pm \mathbf{1 0 \%}$ at $\mathbf{2 5}{ }^{\circ} \mathrm{C}$ | Pick-up Vdc Max. | $\begin{gathered} \text { Drop-out } \\ \text { Vdc } \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Raised | Flush | Raised | Flush | Plain | Laydown | Max | Nom |  |  | Min | Max. |
| Lug | Lug | Pin | Pin | Pin | Lug |  |  |  |  |  |  |
| -001 | -002 | -003 | -004 | -005 | -031 | 32,0 | 26,5 | 300 | 18,0 | 1,5 | 7,0 |
| -006 | -007 | -008 | -009 | -010 | -032 | 16,0 | 12,0 | 75 | 9,0 | 0,5 | 5,0 |
| -011 | -012 | -013 | -014 | -015 | -033 | 9,0 | 6,0 | 19 | 4,5 | 0,25 | 2,5 |
| -016 | -017 | -018 | -019 | -020 | -034 | 52,0 | 48,0 | 1200 | 36,0 | 2,0 | 20,0 |
| -026 | -027 | -028 | -029 | -030 | -036 | 122,0 | 120,0 | 7500 | 90,0 | 5,0 | 50,0 |
| -037 | -038 | -039 | -040 | -041 | -042 | 24,0 | 18,0 | 170 | 13,5 | 0,75 | 7,5 |



Note:

- Dimensions are shown in inches (millimetres)
- Terminal spacing is $.200(5,08)$. Terminal diameter is $.050(1,27) \pm .002(0,05)$


## Schematic Diagrams



Note:

- Schematics are viewed from terminals

Mounting Styles


Note:

- Dimensions are shown in inches (millimetres).


