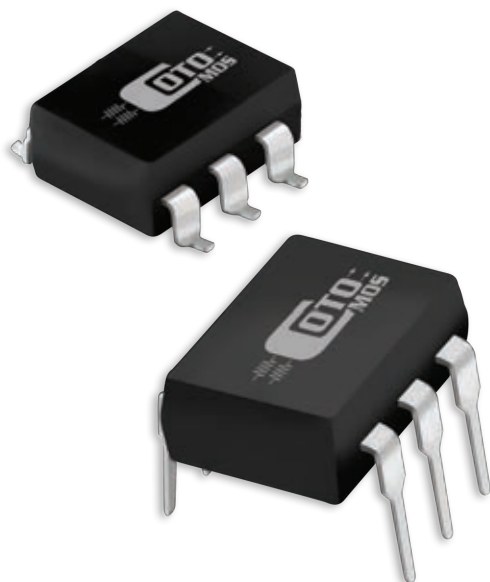




### CotoMOS CT130/CS130

The CT130 and CS130 feature current switching capability to 120mA with a low on resistance of 30Ω Maximum. Designed for Security, Measurement and Instrumentation applications the CotoMOS<sup>®</sup> relay is capable of handling 400V load conditions. If your requirements are different please contact your Coto Applications Engineer for assistance through [www.cotorelay.com](http://www.cotorelay.com).

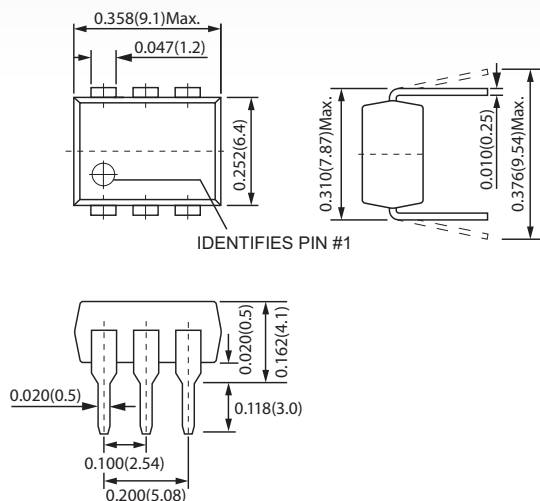
### CT130/CS130 Features

- ▶ Contact Form: 1a
- ▶ Load Voltage: 400V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: 120mA Maximum
- ▶ On-Resistance: 30Ω Maximum
- ▶ Low Off-State Leakage Current: 1.0μA Maximum
- ▶ I/O Breakdown Voltage: 1500Vrms Minimum
- ▶ Suffix - H for I/O Breakdown Voltage: 5000Vrms Minimum

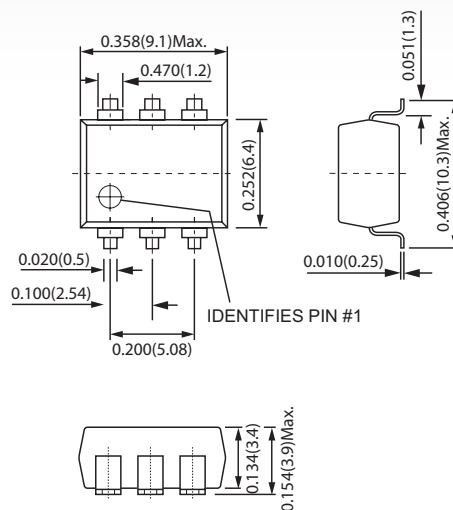
## DIMENSIONS

*in Inches (Millimeters)*

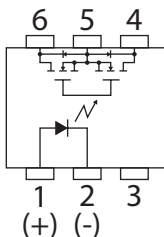
CT130



CS130



### TERMINAL IDENTIFICATION



1: Anode (LED)  
2: Cathode (LED)  
3: NC

4,6: Drain (MOS FET)  
5: Source (MOS FET)

| CT130/CS130 MAXIMUM RATINGS (Ambient Temperature: 25°C) |                   |       |                      |
|---------------------------------------------------------|-------------------|-------|----------------------|
| Parameters                                              | Symbol            | Units | Value                |
| <b>INPUT SPECIFICATIONS</b>                             |                   |       |                      |
| Continuous LED Current                                  | I <sub>F</sub>    | mA    | 50mA                 |
| Peak LED Current                                        | I <sub>FP</sub>   | mA    | 500mA                |
| LED Reverse Voltage                                     | V <sub>R</sub>    | V     | 5V                   |
| Input Power Dissipation                                 | P <sub>in</sub>   | mW    | 75mW                 |
| <b>OUTPUT SPECIFICATIONS</b>                            |                   |       |                      |
| Load Voltage                                            | V <sub>L</sub>    | V     | 400V (AC peak or DC) |
| Load Current                                            | I <sub>L</sub>    | A     | 120mA                |
| Peak Load Current                                       | I <sub>Peak</sub> | A     | 0.6A                 |
| Output Power Dissipation                                | P <sub>Out</sub>  | mW    | 450mW                |
| <b>RELAY SPECIFICATIONS</b>                             |                   |       |                      |
| Total Power Dissipation                                 | P <sub>T</sub>    | mW    | 500mW                |
| I/O Breakdown Voltage                                   | V <sub>I/O</sub>  | V     | 1500Vrms             |
| Operating Temperature                                   | T <sub>opr</sub>  |       | -40°C ~ +85°C        |
| Storage Temperature                                     | T <sub>stg</sub>  |       | -40°C ~ +100°C       |

| CT130/CS130 ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C) |                    |                                                                              |       |                 |      |     |
|-------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------|-------|-----------------|------|-----|
| Parameters                                                        | Symbol             | Test Conditions                                                              | Units | Min             | Typ  | Max |
| INPUT                                                             |                    |                                                                              |       |                 |      |     |
| LED Forward Voltage                                               | V <sub>F</sub>     | I=10mA                                                                       | V     | 1.0             |      | 1.5 |
| Operation LED Current                                             | I <sub>F On</sub>  |                                                                              | mA    |                 | 0.9  | 3.0 |
| Recovery LED Voltage                                              | V <sub>F Off</sub> |                                                                              | V     | 0.5             | 1.0  |     |
| OUTPUT                                                            |                    |                                                                              |       |                 |      |     |
| On-Resistance Drain to Drain                                      | R <sub>On</sub>    | I <sub>F</sub> =5mA, I <sub>L</sub> =Rating<br>Time to flow is within 1 sec. | Ω     |                 | 24   | 30  |
| Off-State Leakage Current                                         | I <sub>Leak</sub>  | V <sub>L</sub> =400V                                                         | μA    |                 |      | 1.0 |
| Output Capacitance                                                | C <sub>Out</sub>   | V <sub>L</sub> =0V, f=1MHz                                                   | pF    |                 | 115  |     |
| TRANSMISSION                                                      |                    |                                                                              |       |                 |      |     |
| Turn-On Time                                                      | T <sub>On</sub>    | I <sub>F</sub> =10mA, I <sub>L</sub> =Rating                                 | ms    |                 | 0.2  | 1.0 |
| Turn-Off Time                                                     | T <sub>Off</sub>   |                                                                              | ms    |                 | 0.05 | 1.0 |
| COUPLED                                                           |                    |                                                                              |       |                 |      |     |
| I/O Insulation Resistance                                         | R <sub>I/O</sub>   |                                                                              | Ω     | 10 <sup>9</sup> |      |     |
| I/O Capacitance                                                   | C <sub>I/O</sub>   | f=1MHz                                                                       | pF    |                 | 1.3  |     |

#### Environmental Ratings:

Operating Temp: -40°C to +85° C; Storage Temp: -40 to +100 C.  
All electrical parameters measured at 25° C unless otherwise specified.