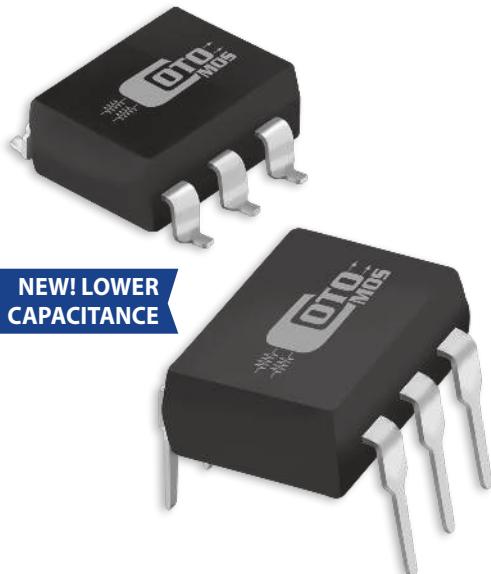




# CT130/CS130



## 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® 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).

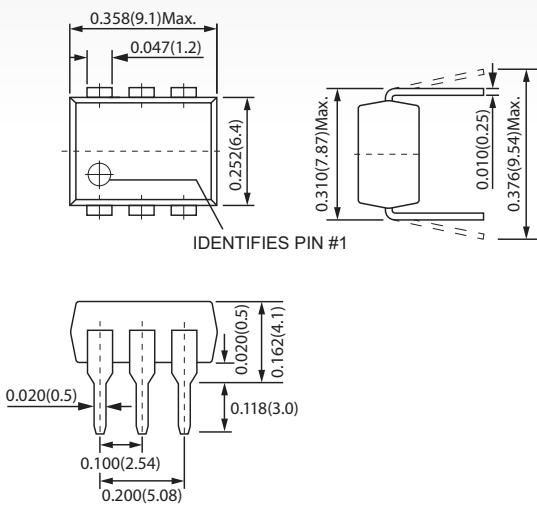
## CT130/CS130 Features

- 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

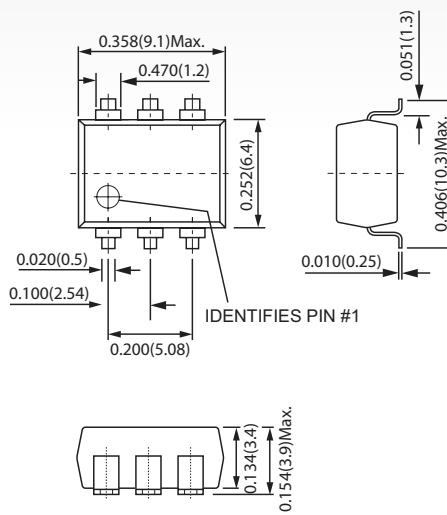
## DIMENSIONS

*in Inches (Millimeters)*

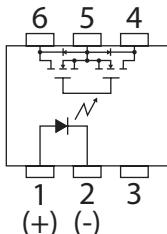
CT130



CS130



## TERMINAL IDENTIFICATION



|   |   |
|---|---|
| 1: Anode (LED)<br>2: Cathode (LED)<br>3: NC | 4,6: Drain (MOS FET)<br>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                | 50         |
| Peak LED Current             | I <sub>FP</sub>   | mA                | 500        |
| LED Reverse Voltage          | V <sub>R</sub>    | V                 | 5          |
| Input Power Dissipation      | P <sub>in</sub>   | mW                | 75         |
| <b>OUTPUT SPECIFICATIONS</b> |                   |                   |            |
| Load Voltage                 | V <sub>L</sub>    | V (AC peak or DC) | 400        |
| Load Current                 | I <sub>L</sub>    | mA                | 120        |
| Peak Load Current            | I <sub>Peak</sub> | A                 | 0.6        |
| Output Power Dissipation     | P <sub>out</sub>  | mW                | 450        |
| <b>RELAY SPECIFICATIONS</b>  |                   |                   |            |
| Total Power Dissipation      | P <sub>T</sub>    | mW                | 500        |
| I/O Breakdown Voltage        | V <sub>I/O</sub>  | V <sub>rms</sub>  | 1500       |
| Operating Temperature        | T <sub>Op</sub>   | °C                | -40 ~ +85  |
| Storage Temperature          | T <sub>Stg</sub>  | °C                | -40 ~ +100 |

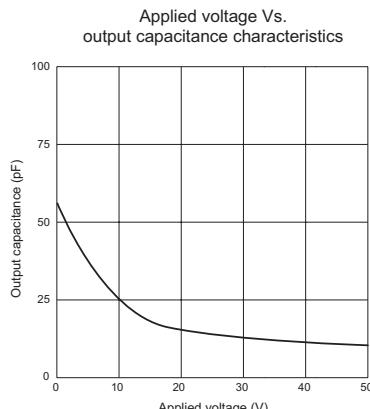
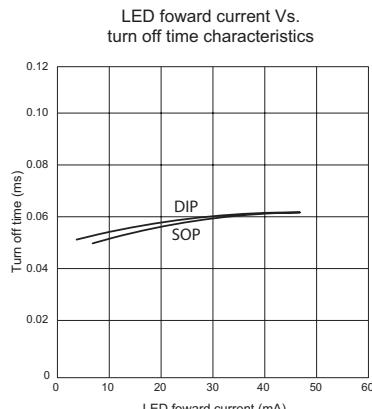
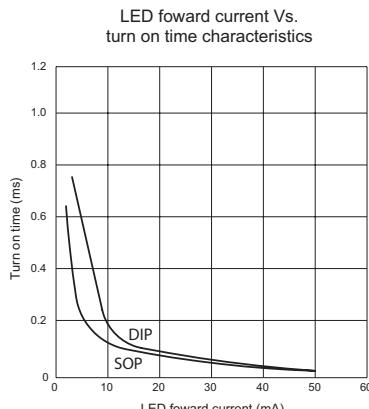
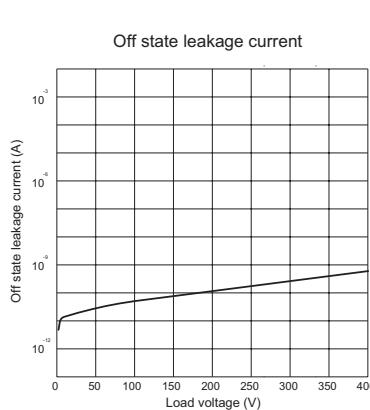
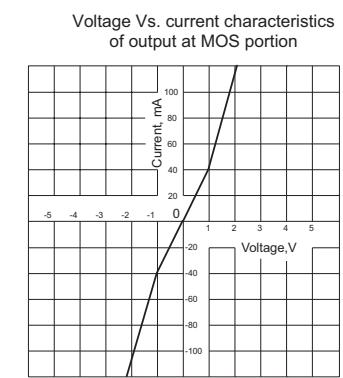
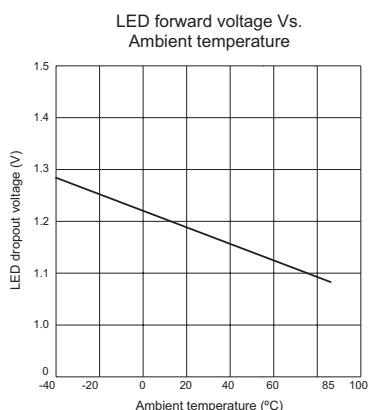
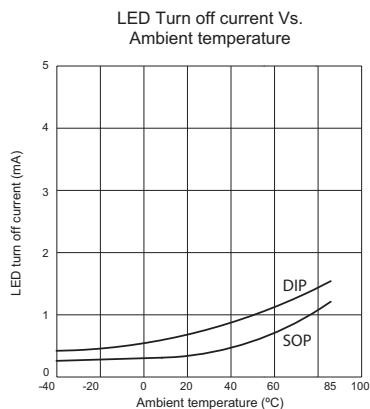
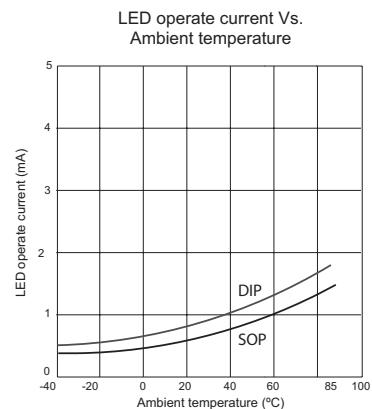
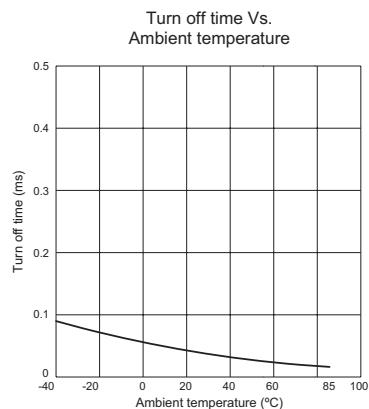
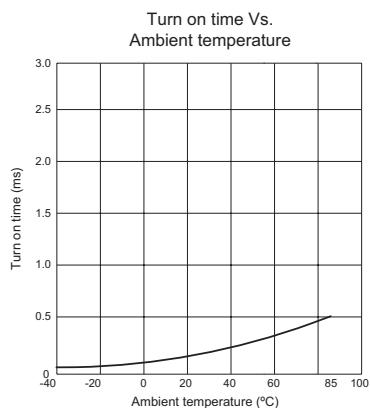
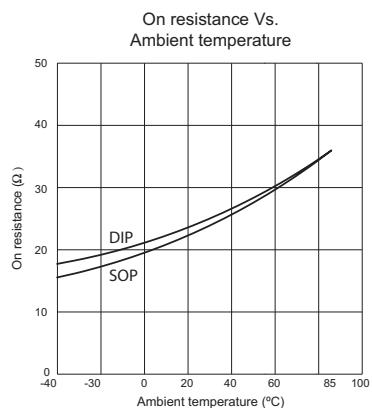
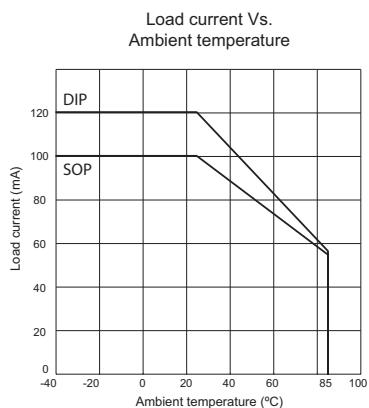
## CT130/CS130 ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)

| Parameters                   | Symbol             | Test Conditions  | Units | Min             | Typ  | Max |
|------------------------------|--------------------|--|-------|-----------------|------|-----|
| <b>INPUT</b>                 |                    |  |       |                 |      |     |
| LED Forward Voltage          | V <sub>F</sub>     | I=10mA   | V     | 1.0             | 1.17 | 1.5 |
| Operation LED Current        | I <sub>F On</sub>  |  | mA    |                 | 0.65 | 3.0 |
| Recovery LED Voltage         | V <sub>F Off</sub> |  | V     | 0.5             | 1.0  |     |
| <b>OUTPUT</b>                |                    |  |       |                 |      |     |
| 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     |                 | 21   | 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    |                 | 55   |     |
| <b>TRANSMISSION</b>          |                    |  |       |                 |      |     |
| 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  |     |
| <b>COUPLED</b>               |                    |  |       |                 |      |     |
| 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.

## 30 SERIES GRAPHS



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