

**CotoMOS® C245S/C345S**

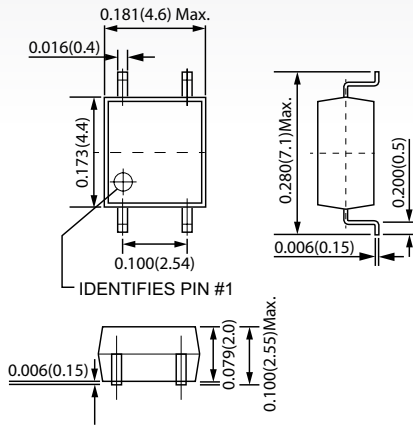
The C245S and C345S feature current switching capability to 100mA with a low on resistance of 14Ω Maximum. Designed for Security, Measurement and Instrumentation applications the CotoMOS® relay is capable of handling 60V load conditions. If your requirements are different please contact your Coto Applications Engineer for assistance through [www.cotorelay.com](http://www.cotorelay.com).

**C245S/C345S Features**

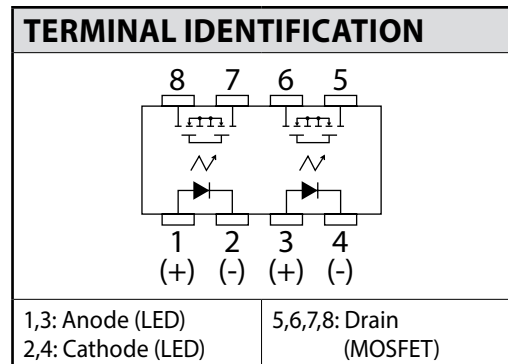
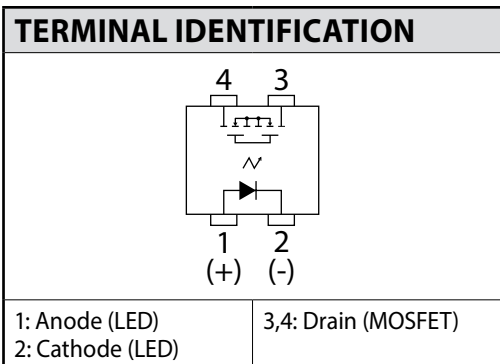
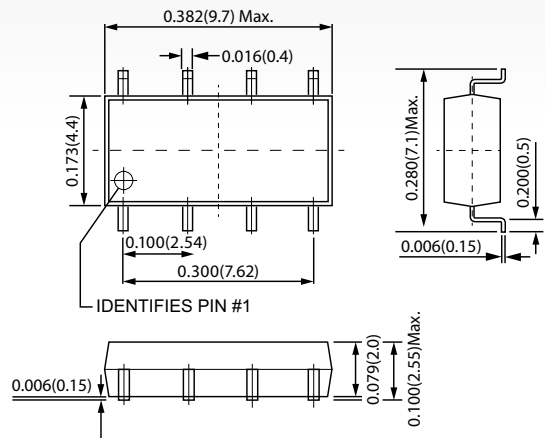
- ▶ Contact Form: C245S: 1A / C345S: 2A
- ▶ Load Voltage: 60V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: 100mA Maximum
- ▶ On-Resistance: 14Ω Maximum
- ▶ Output Capacitance: 20pF Typical
- ▶ Low Off-State Leakage Current: 1.0μA Maximum

**DIMENSIONS**  
*in Inches (Millimeters)*

**C245S**



**C345S**



| <b>C245S/C345S MAXIMUM RATINGS (Ambient Temperature: 25°C)</b> |                   |                   |                       |
|--|-------------------|-------------------|-----------------------|
| 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) | 60                    |
| Load Current   | I <sub>L</sub>    | mA                | 100                   |
| Peak Load Current  | I <sub>Peak</sub> | A                 | 350                   |
| Output Power Dissipation                                       | P <sub>Out</sub>  | mW                | 200 (1Ch) / 400 (2Ch) |
| <b>RELAY SPECIFICATIONS</b>                                    |                   |                   |                       |
| Total Power Dissipation  | P <sub>T</sub>    | mW                | 225 (1Ch) / 450 (2Ch) |
| I/O Breakdown Voltage  | V <sub>I/O</sub>  | V <sub>rms</sub>  | 1500                  |
| Operating Temperature  | T <sub>Opr</sub>  | °C                | -40 ~ +85             |
| Storage Temperature  | T <sub>Stg</sub>  | °C                | -40 ~ +100            |

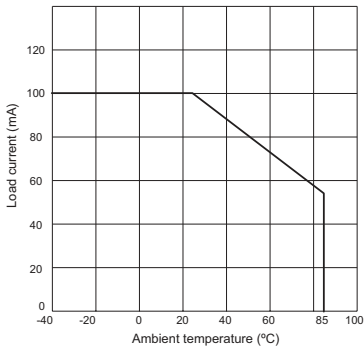
| <b>C245S/C345S ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C)</b> |                    |  |       |                 |     |     |
|--|--------------------|--|-------|-----------------|-----|-----|
| Parameters   | Symbol             | Test Conditions  | Units | Min             | Typ | Max |
| <b>INPUT</b>   |                    |  |       |                 |     |     |
| LED Forward Voltage  | V <sub>F</sub>     | I <sub>F</sub> =10mA   | V     | 1.0             |     | 1.5 |
| Operation LED Current  | I <sub>F On</sub>  |  | mA    |                 |     | 3.0 |
| Recovery LED Voltage   | V <sub>F Off</sub> |  | V     | 0.5             |     |     |
| <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     |                 |     | 14  |
| Off-State Leakage Current  | I <sub>Leak</sub>  | V <sub>L</sub> =60V  | μA    |                 |     | 1.0 |
| Output Capacitance   | C <sub>Out</sub>   | V <sub>L</sub> =0V, f=1MHz   | pF    |                 | 20  |     |
| <b>TRANSMISSION</b>  |                    |  |       |                 |     |     |
| Turn-On Time   | T <sub>On</sub>    | I <sub>F</sub> =5mA, I <sub>L</sub> =Rating                                  | ms    |                 |     | 3.0 |
| Turn-Off Time  | T <sub>Off</sub>   |  | ms    |                 |     | 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:**

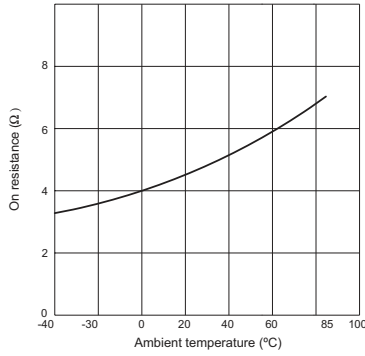
Operating Temp: -40°C to +85°C; Storage Temp: -40 to +100 C.  
All electrical parameters measured at 25° C unless otherwise specified.

# C245S/C345S GRAPHS

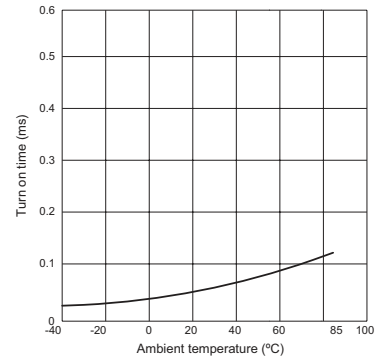
Load current Vs. Ambient temperature



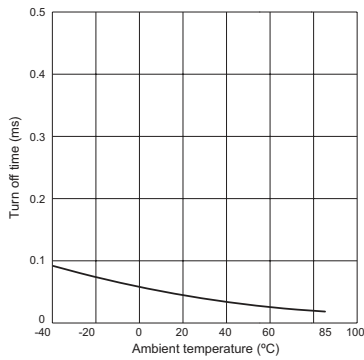
On resistance Vs. Ambient temperature



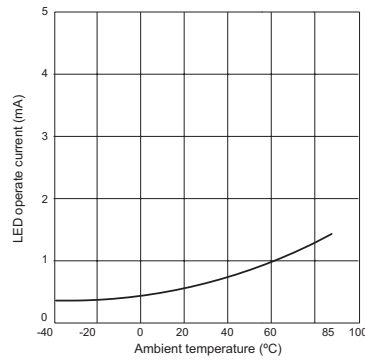
Turn on time Vs. Ambient temperature



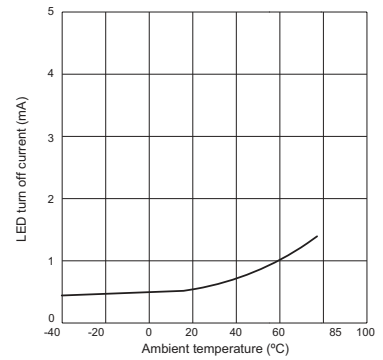
Turn off time Vs. Ambient temperature



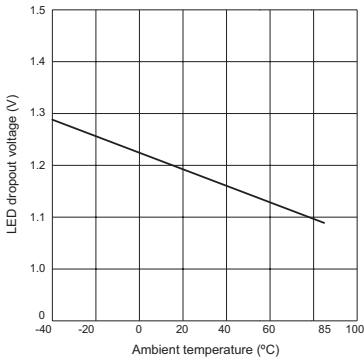
LED operate current Vs. Ambient temperature



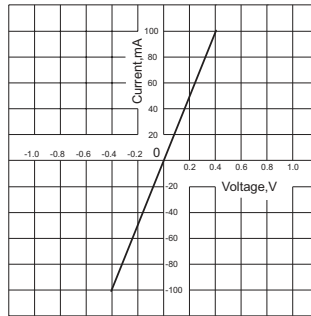
LED Turn off current Vs. Ambient temperature



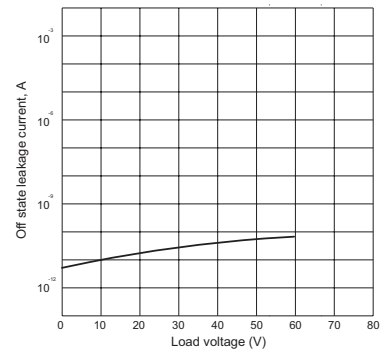
LED forward voltage Vs. Ambient temperature



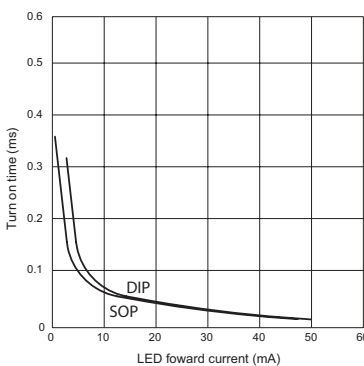
Voltage Vs. current characteristics of output at MOS portion



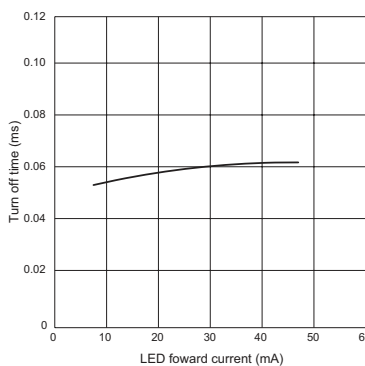
Off state leakage current



LED forward current Vs. turn on time characteristics



LED forward current Vs. turn off time characteristics



Applied voltage Vs. output capacitance characteristics

