

CotoMOS® C230S/C330S

When small size and high performance are needed, the SOP package, such as the C230S or C330S, is the industry choice. Both the C230S and the C330S feature high load voltage capability and the opportunity for efficient board layout, saving precious board space without compromising on performance. In addition, the C330S offers two fully-independent form A channels for further space savings. Both relays are ideally suited to the needs of Test and Measurement, Industrial, and Telecommunications.

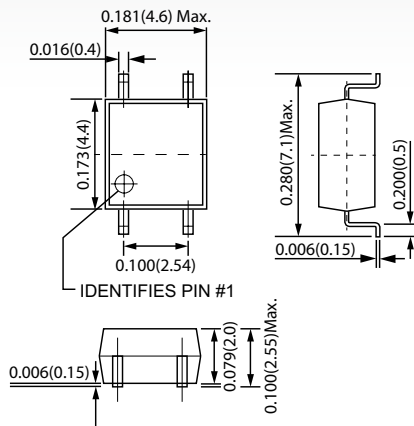
C230S/C330S Features

- ▶ Contact Form: C230S: 1A / C330S: 2A
- ▶ Load Voltage: 400V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: C230S: 100mA Maximum / C330S: 85mA Maximum
- ▶ On-Resistance: 24Ω Typical
- ▶ Output Capacitance: 115pF Typical
- ▶ Low Off-State Leakage Current: 1.0μA Maximum

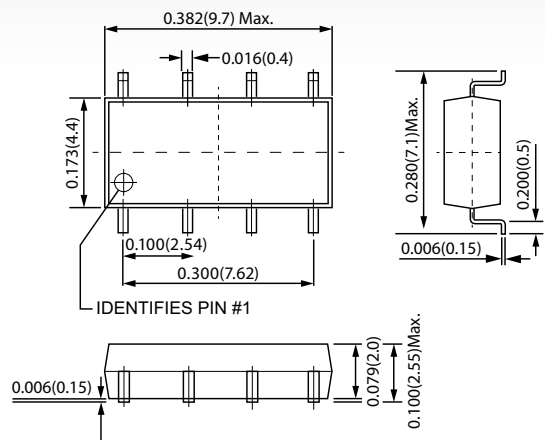
DIMENSIONS

in Inches (Millimeters)

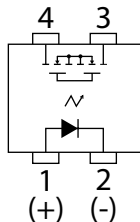
C230S



C330S



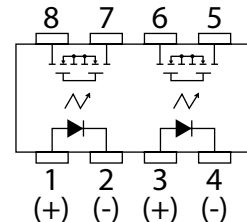
TERMINAL IDENTIFICATION



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

3,4: Drain (MOSFET)

TERMINAL IDENTIFICATION



1,3: Anode (LED)
2,4: Cathode (LED)

5,6,7,8: Drain (MOSFET)

| C230S/C330S MAXIMUM RATINGS (Ambient Temperature: 25°C) | | | |
|--|-------------------|-------------------|-----------------------|
| Parameters | Symbol | Units | Value |
| INPUT SPECIFICATIONS | | | |
| Continuous LED Current | I _F | mA | 50 |
| Peak LED Current | I _{FP} | mA | 500 |
| LED Reverse Voltage | V _R | V | 5 |
| Input Power Dissipation | P _{in} | mW | 75 |
| OUTPUT SPECIFICATIONS | | | |
| Load Voltage | V _L | V (AC peak or DC) | 400 |
| Load Current | I _L | mA | 100 (1Ch) / 85 (2Ch) |
| Peak Load Current | I _{Peak} | A | 0.6 |
| Output Power Dissipation | P _{Out} | mW | 300 (1Ch) / 450 (2Ch) |
| RELAY SPECIFICATIONS | | | |
| Total Power Dissipation | P _T | mW | 350 (1Ch) / 500 (2Ch) |
| I/O Breakdown Voltage | V _{I/O} | V _{rms} | 1500 |
| Operating Temperature | T _{Opr} | °C | -40 ~ +85 |
| Storage Temperature | T _{Stg} | °C | -40 ~ +100 |

| C230S/C330S ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25°C) | | | | | | |
|--|--------------------|--|-------|-----------------|------|-----|
| Parameters | Symbol | Test Conditions | Units | Min | Typ | Max |
| INPUT | | | | | | |
| LED Forward Voltage | V _F | I _F =10mA | V | 1.0 | | 1.5 |
| Operation LED Current | I _{F On} | | mA | | 0.9 | 3.0 |
| Recovery LED Voltage | V _{F Off} | | V | 0.5 | | |
| OUTPUT | | | | | | |
| On-Resistance Drain to Drain | R _{On} | I _F =5mA, I _L =Rating Time to flow is within 1 sec. | Ω | | 24 | 30 |
| Off-State Leakage Current | I _{Leak} | V _L =400V | μA | | | 1.0 |
| Output Capacitance | C _{Out} | V _L =0V, f=1MHz | pF | | 115 | |
| TRANSMISSION | | | | | | |
| Turn-On Time | T _{On} | I _F =5mA, I _L =Rating | ms | | 0.25 | 0.5 |
| Turn-Off Time | T _{Off} | | ms | | 0.02 | 0.2 |
| COUPLED | | | | | | |
| I/O Insulation Resistance | R _{I/O} | | Ω | 10 ⁹ | | |
| I/O Capacitance | C _{I/O} | 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.