

**CotoMOS® C2231S/C3231S**

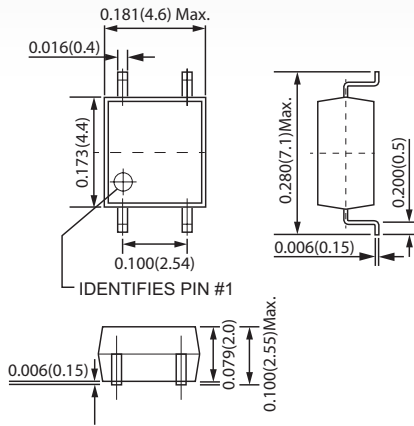
When small size and high performance are needed, the SOP package, such as the C2231S or C3231S, is the industry choice. Both the C2231S and the C3231S feature low on-resistance, high load-current capacity, and low off-state leakage current. In addition, the C3231S offers two fully-independent form A channels for further space savings. Both relays are ideally suited to the needs of Test and Measurement, Industrial, and Telecommunications.

**C2231S/C3231S Features**

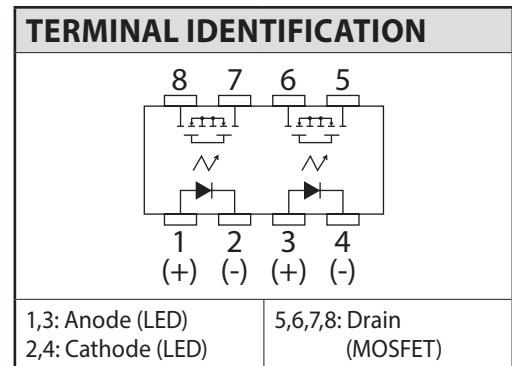
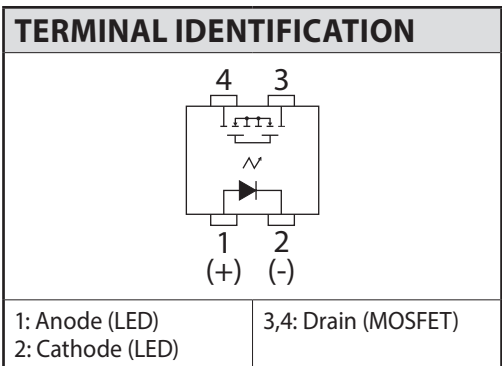
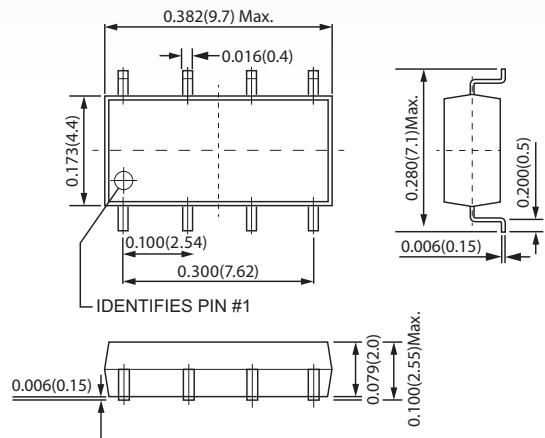
- ▶ Contact Form: C2231S: 1A / C3231S: 2A
- ▶ Load Voltage: 250V Maximum
- ▶ Must Operate LED Current: 3.0mA Maximum
- ▶ Load Current: 0.17A Maximum
- ▶ Low On-Resistance: 11Ω Maximum
- ▶ Output Capacitance: 33pF Typical
- ▶ Low Off-State Leakage Current: 10μA Maximum

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

C2231S



C3231S



<b>C2231S/C3231S 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)	250
Load Current	I <sub>L</sub>	A	0.17 (1Ch) / 0.14 (2Ch)
Peak Load Current	I <sub>Peak</sub>	A	0.42
Output Power Dissipation	P <sub>Out</sub>	mW	300 (1Ch) / 450 (2Ch)
<b>RELAY SPECIFICATIONS</b>			
Total Power Dissipation	P <sub>T</sub>	mW	350 (1Ch) / 500 (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>C2231S/C3231S 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	1.17	1.5
Operation LED Current	I <sub>F On</sub>		mA		0.4	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 Time to flow is within 1 sec.	Ω		11	15
Off-State Leakage Current	I <sub>Leak</sub>	V <sub>L</sub> =40V	μA		0.03	10
Output Capacitance	C <sub>Out</sub>	V <sub>L</sub> =0V, f=1MHz	pF		33	
<b>TRANSMISSION</b>						
Turn-On Time	T <sub>On</sub>	I <sub>F</sub> =5mA, I <sub>L</sub> =Rating	ms		0.15	0.5
Turn-Off Time	T <sub>Off</sub>		ms		0.05	0.2
<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		0.8	

**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.

# C2231S/C3231S SERIES GRAPHS

