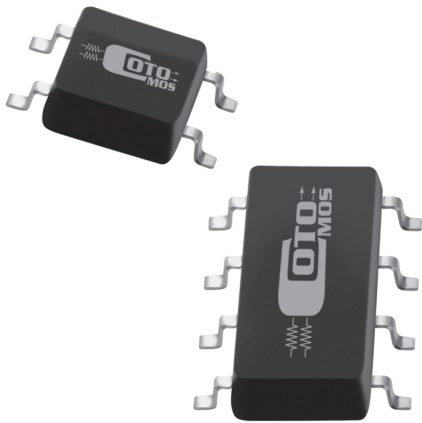


CotoMOS® C231S/C331S

When small size and high performance are needed, the SOP package, such as the C231S or C331S, is the industry choice. Both the C231S and the C331S feature high load voltage capability and the opportunity for efficient board layout, saving precious board space without compromising on performance. In addition, the C331S 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.



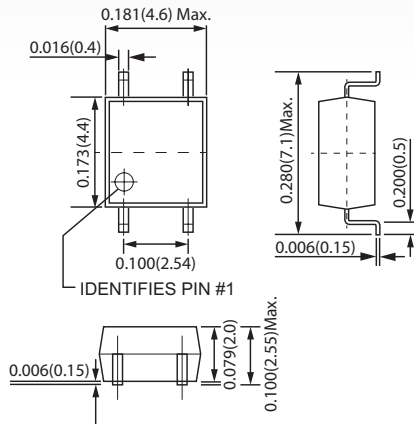
C231S/C331S Features

- ▶ Contact Form: C231S: 1A / C331S: 2A
- ▶ Load Voltage: 350V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: C231S: 120mA Maximum / C331S: 100mA Maximum
- ▶ On-Resistance: 24Ω Maximum
- ▶ Output Capacitance: 115pF Typical
- ▶ Low Off-State Leakage Current: 1.0μA Maximum

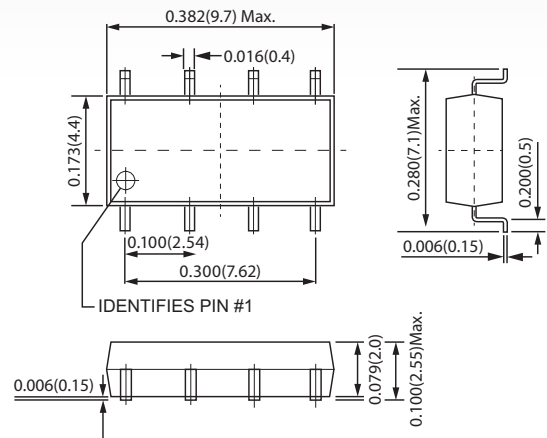
DIMENSIONS

in Inches (Millimeters)

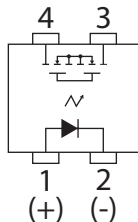
C231S



C331S

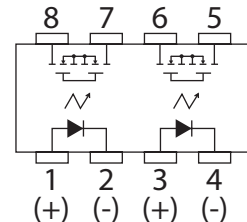


TERMINAL IDENTIFICATION



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

TERMINAL IDENTIFICATION



1,3: Anode (LED)	5,6,7,8: Drain (MOSFET)
2,4: Cathode (LED)	

C231S/C331S 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)	350
Load Current	I _L	mA	120 (1Ch) / 100 (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

C231S/C331S 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		17	24
Off-State Leakage Current	I _{Leak}	V _L =350V	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		0.05	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.

31 SERIES GRAPHS

