

**CotoMOS C238S/C338S**

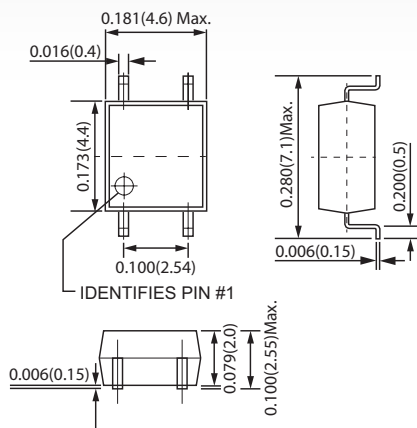
When small size and high performance are needed, the SOP package, such as the C238S or C338S, is the industry choice. Both the C238S and the C338S feature low on resistance fast turn on time. In addition, the C338S offers two fully-independent form A channels for further space savings. Both relays are ideally suited to the needs of Test and Measurement, Industrial, and Telecommunications.

**C238S/C338S Features**

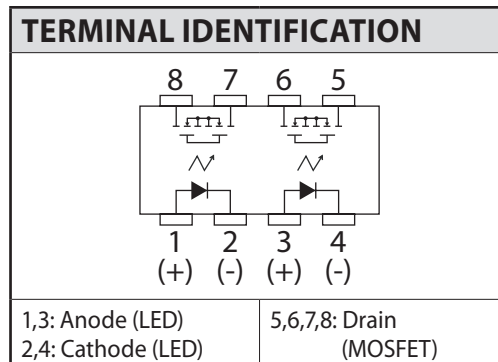
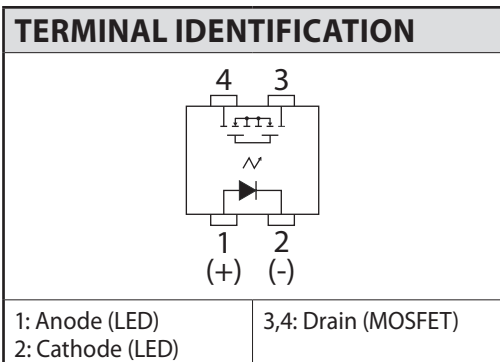
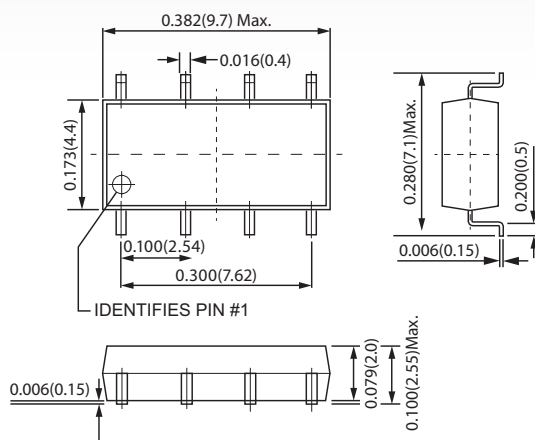
- ▶ Contact Form: C238S: 1a / C338S: 2a
- ▶ Load Voltage: 600V Maximum
- ▶ Operation LED Current: 3.0mA Maximum
- ▶ Load Current: C238S: 70mA Maximum / C338S: 60mA Maximum
- ▶ On-Resistance: 60Ω Maximum
- ▶ Output Capacitance: 95pF Typical
- ▶ Low Off-State Leakage Current: 1.0μA Maximum

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

**C238S**



**C338S**



## C238S/C338S MAXIMUM RATINGS (Ambient Temperature: 25°C)

Parameters	Symbol	Units	Value
<b>INPUT SPECIFICATIONS</b>			
Continuous LED Current	I <sub>F</sub>	mA	50mA
Peak LED Current	I <sub>FP</sub>	mA	500mA
LED Reverse Voltage	V <sub>R</sub>	V	5V
Input Power Dissipation	P <sub>in</sub>	mW	75mW
<b>OUTPUT SPECIFICATIONS</b>			
Load Voltage	V <sub>L</sub>	V	600V (AC peak or DC)
Load Current	I <sub>L</sub>	A	70mA (1Ch) / 60mA (2Ch)
Peak Load Current	I <sub>Peak</sub>	A	200mA
Output Power Dissipation	P <sub>Out</sub>	mW	300mW (1Ch) / 450mW (2Ch)
<b>RELAY SPECIFICATIONS</b>			
Total Power Dissipation	P <sub>T</sub>	mW	350mW (1Ch) / 500mW (2Ch)
I/O Breakdown Voltage	V <sub>I/O</sub>	V	1500Vrms
Operating Temperature	T <sub>Opr</sub>		-40°C ~ +85°C
Storage Temperature	T <sub>Stg</sub>		-40°C ~ +100°C

## C238S/C338S 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 <sub>F</sub> =10mA	V	1.0	1.17	1.5
Operation LED Current	I <sub>F On</sub>		mA		0.9	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		35	60
Off-State Leakage Current	I <sub>Leak</sub>	V <sub>L</sub> =600V	μA			1.0
Output Capacitance	C <sub>Out</sub>	V <sub>L</sub> =0V, f=1MHz	pF		95	
<b>TRANSMISSION</b>						
Turn-On Time	T <sub>On</sub>	I <sub>F</sub> =5mA, I <sub>L</sub> =Rating (for SOP type)	ms		0.2	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		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.