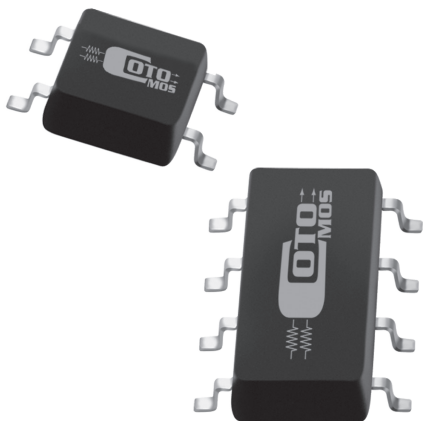




CotoMOS® C238S/C338S

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.

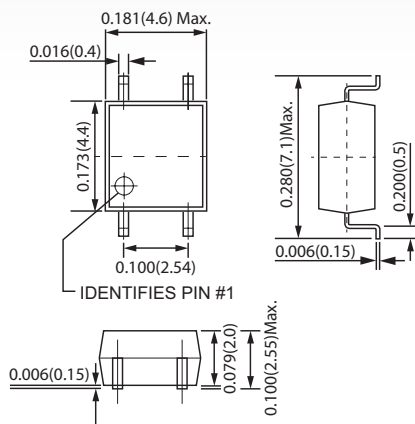
C238S/C338S Features

- ▶ 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

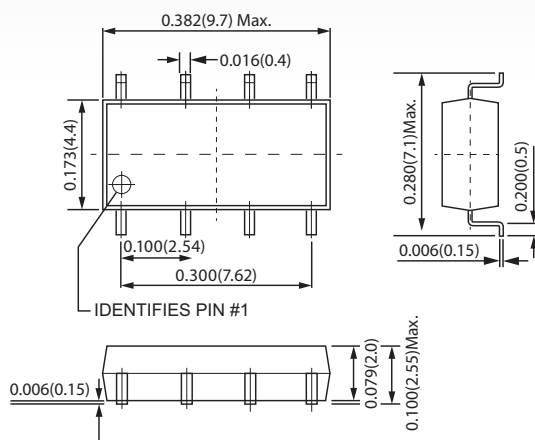
DIMENSIONS

in Inches (Millimeters)

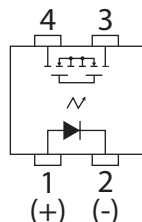
C238S



C338S



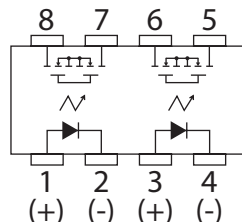
TERMINAL IDENTIFICATION



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)

C238S/C338S 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)	600
Load Current	I _L	mA	70 (1Ch) / 60 (2Ch)
Peak Load Current	I _{Peak}	mA	200
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

C238S/C338S 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	1.17	1.5
Operation LED Current	I _{F On}		mA		0.9	3.0
Recovery LED Voltage	V _{F Off}		V	0.5	1.0	
OUTPUT						
On-Resistance Drain to Drain	R _{On}	I _F =5mA, I _L =Rating Time to flow is within 1 sec.	Ω		35	60
Off-State Leakage Current	I _{Leak}	V _L =600V	μA			1.0
Output Capacitance	C _{Out}	V _L =0V, f=1MHz	pF		95	
TRANSMISSION						
Turn-On Time	T _{On}	I _F =5mA, I _L =Rating (for SOP type)	ms		0.2	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.

38 SERIES GRAPHS

