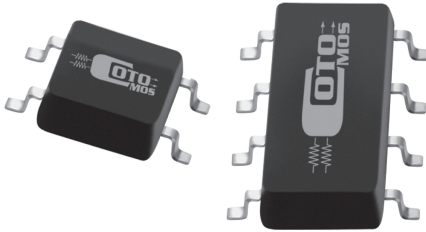


## 1 Description

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.

## Device Package



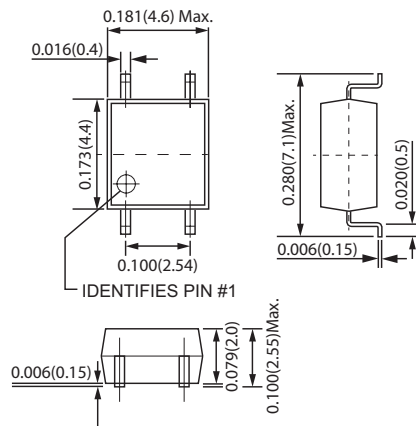
## 2 Features

- ▶ Contact Form: C238S: 1A / C338S: 2A
- ▶ Load Voltage: 600V Maximum
- ▶ Operation LED Current: 1.0mA Maximum
- ▶ Load Current: C238S: 70mA Maximum / C338S: 80mA Maximum
- ▶ On-Resistance: 50Ω Maximum
- ▶ Output Capacitance: 115pF Typical
- ▶ Low Off-State Leakage Current: 1.0μA Maximum

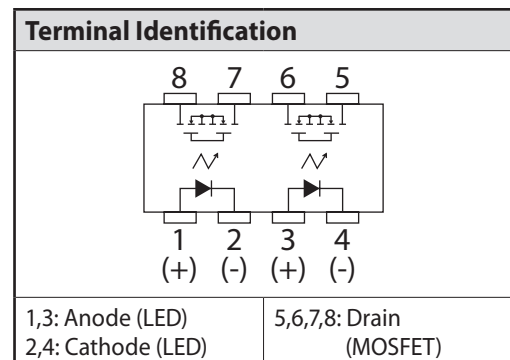
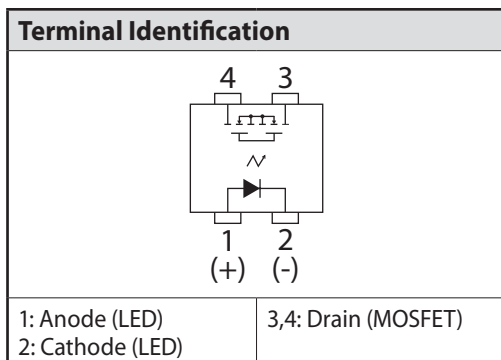
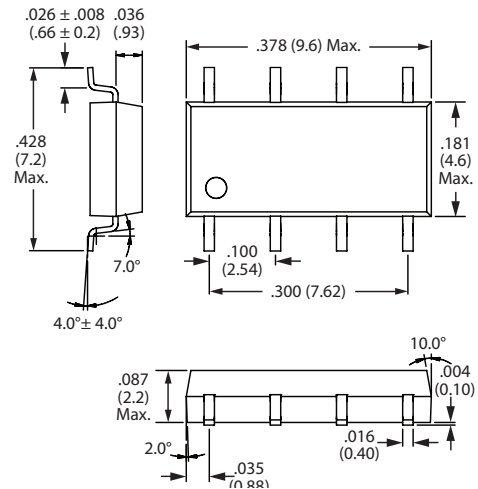
## DIMENSIONS

*in Inches (Millimeters)*

C238S



C338S



## Specifications

### Absolute Maximum Ratings

Parameters		Symbol	Rating	Unit
Input	Continuous LED Current	$I_F$	50	mA
	Peak LED Current (f=100 Hz, duty=1%)	$I_{FP}$	1000	mA
	LED Reverse Voltage	$V_R$	5	V
	Input Power Dissipation	$P_{In}$	75	mW
Output	Load Voltage	$V_L$	600	V (AC peak or DC)
	Load Current	$I_L$	80	mA
	Peak Load Current	$I_{Peak}$	1.0	mA
	Output Power Dissipation	$P_{out}$	450	mW
Total Power Dissipation		$P_T$	500	mW
I/O Breakdown Voltage (RH=60%, 1 min)		$V_{I/O}$	1500	V <sub>rms</sub>
Operating Temperature		$T_{opr}$	-40 to +85	°C
Storage Temperature		$T_{stg}$	-40 to +100	°C
Pin Soldering Temperature (10 Sec. Max.)		$T_{sol}$	260	°C

### Electro-Optical Characteristics

Parameters		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	LED Forward Voltage	$V_F$	$I_F=10mA$		1.2	1.4	V
	Operation LED Current	$I_{FON}$			0.5	1.0	mA
	Recovery LED Voltage	$V_{FOFF}$			0.35	0.5	V
Output	On-Resistance Drain to Drain	$R_{on}$	$I_F=5mA, I_L=Rating$ Time to flow is within 1 sec.		35	50	$\Omega$
	Off-State Leakage Current	$I_{LEAK}$	$V_L=600V$		0.2	1.0	$\mu A$
	Output Capacitance	$C_{out}$	$V_L=0V, f=1MHz$		115		pF
Trans- mission	Turn-On Time	$T_{ON}$	$I_F=5mA, I_L=Rating$ (for SOP type)		0.3	1.0	ms
	Turn-Off Time	$T_{OFF}$			0.02	0.2	ms
Coupled	I/O Isolation Resistance	$R_{I/O}$		$10^{10}$			$\Omega$
	I/O Capacitance	$C_{I/O}$	$f=1MHz$		0.8	1.5	pF

#### 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.