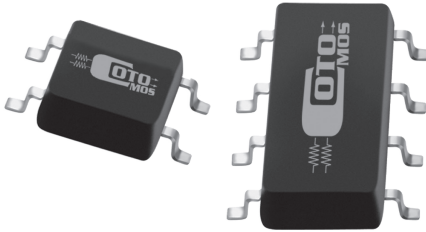


1 Description

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



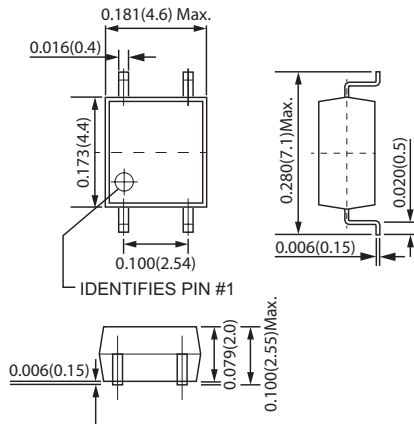
2 Features

- ▶ Contact Form: C238S: 1A / C338S: 2A
- ▶ Load Voltage: 600V Maximum
- ▶ Operation LED Current: 2.0mA Maximum
- ▶ Load Current: C238S: 70mA Maximum / C338S: 80mA Maximum
- ▶ On-Resistance: 50Ω Maximum
- ▶ Output Capacitance: 100pF Typical
- ▶ Low Off-State Leakage Current: 1.0μA Maximum

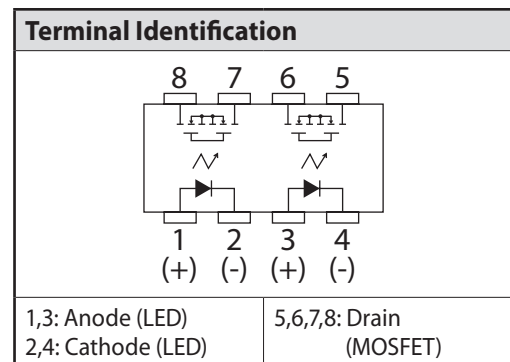
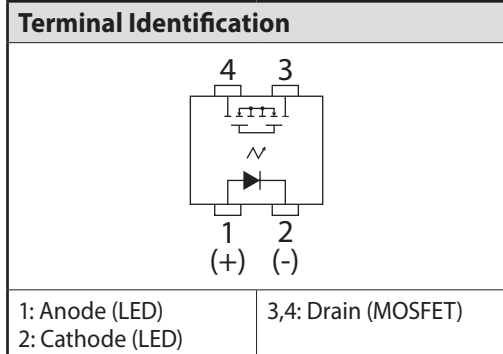
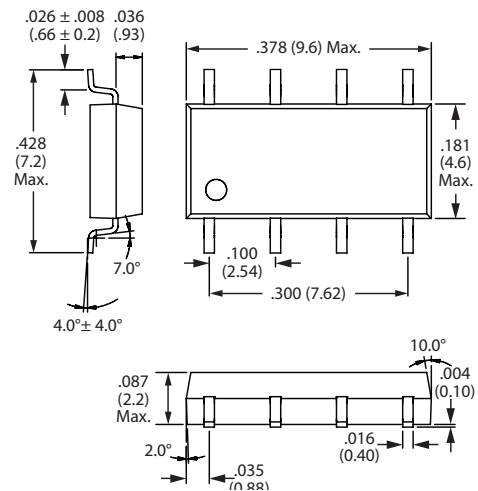
DIMENSIONS

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}	0.6	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 _{rms}
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	2.0	mA
	Recovery LED Voltage	V_{FOFF}				0.7	V
Output	On-Resistance Drain to Drain	R_{on}	$I_F=5mA, I_L=Rating$ Time to flow is within 1 sec.		35	50	Ω
	Off-State Leakage Current	I_{LEAK}	$V_L=600V$		0.2	1.0	μA
	Output Capacitance	C_{out}	$V_L=0V, f=1MHz$		100		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}			Ω
	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.