



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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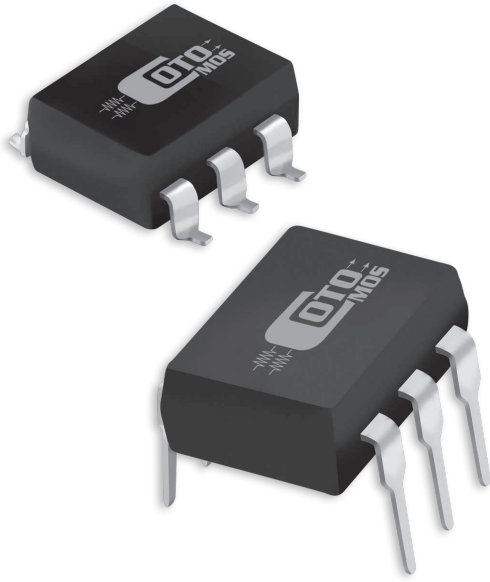


CotoMOS® CT139/CS139

The CT139 and CS139 combine Coto quality and economy in an industry standard 6-pin DIP package. The CT 139 and CS139 offer industry-leading switching capability in through-hole and surface-mount packages. Both relays can be configured to switch 50mA AC/DC in A-Configuration, 70mA DC in B-Configuration and 90mA in C-Configuration. See our Application Note entitled “How to Increase Your Current Capacity of 6-pin CotoMOS® Solid State MOSFET Relays by up to 100%” for additional details. Relays are ideally suited for Industrial, Battery Management and Test & Measurement Applications where high voltage switching is required.

CT139/CS139 Features

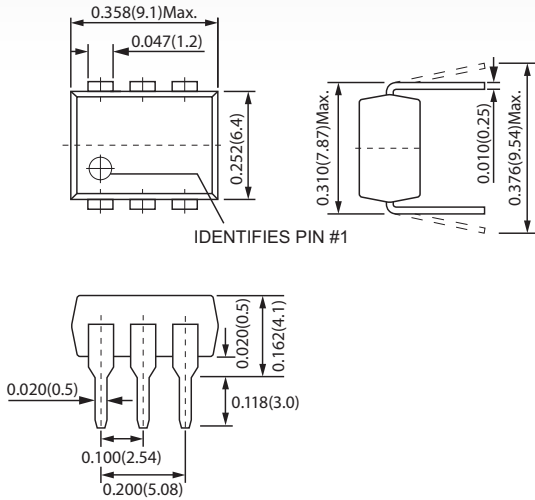
- ▶ Contact Form: 1A
- ▶ Load Voltage: 1000V Maximum
- ▶ Operation LED Current: 5.0mA Maximum
- ▶ Load Current: 50mA Maximum
- ▶ On-Resistance: 75Ω Typical
- ▶ Low Off-State Leakage Current: 10µA Maximum
- ▶ I/O Breakdown Voltage: 3750Vrms Minimum
- ▶ Suffix - H for I/O Breakdown Voltage: 5000Vrms Minimum



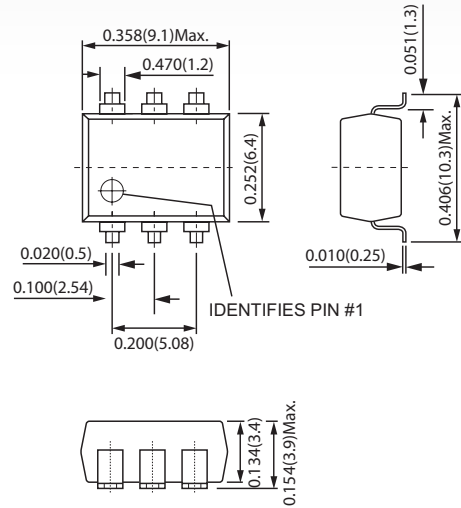
DIMENSIONS

in Inches (Millimeters)

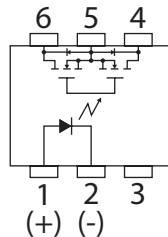
CT139



CS139



TERMINAL IDENTIFICATION



1: Anode (LED)	4,6: Drain (MOS FET)
2: Cathode (LED)	5: Source (MOS FET)
3: NC	

CT139/CS139 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)	1000
Load Current	I _L	mA	50 / 70 / 90
Peak Load Current	I _{Peak}	A	0.15
Output Power Dissipation	P _{Out}	mW	360
RELAY SPECIFICATIONS			
Total Power Dissipation	P _T	mW	410
I/O Breakdown Voltage	V _{I/O}	V _{RMS}	3750
Operating Temperature	T _{Opr}	°C	-40 ~ +85
Storage Temperature	T _{Stg}	°C	-40 ~ +100

CT139/CS139 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	5.0
Recovery LED Voltage	V _{F Off}		V	0.5	1.0	
OUTPUT						
On-Resistance Drain to Drain	R _{On}	I _F =10mA, I _L =Rating Time to flow is within 1 sec.	Ω		75	150
Off-State Leakage Current	I _{Leak}	I _F =0mA, V _L =1000V	μA			10
Output Capacitance	C _{Out}	V _L =0V, f=1MHz	pF		100	
TRANSMISSION						
Turn-On Time	T _{On}	I _F =10mA, I _L =Rating	ms		0.3	1.0
Turn-Off Time	T _{Off}		ms		0.04	0.5
COUPLED						
I/O Insulation Resistance	R _{I/O}		Ω	10 ¹⁰		
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.

CT139/CS139 GRAPHS

