



	LCA710	Units
Blocking Voltage	60	V _p
Load Current	1	A
Max R _{ON}	0.5	Ω

Features

- Small 6 Pin DIP Package
- Low Drive Power Requirements (TTL/CMOS Compatible)
- No Moving Parts
- High Reliability
- Arc-Free With No Snubbing Circuits
- 3750V_{rms} Input/Output Isolation
- No EMI/RFI Generation
- Machine Insertable, Wave Solderable
- Surface Mount and Tape & Reel Versions Available

Applications

- Instrumentation
 - Multiplexers
 - Data Acquisition
 - Electronic Switching
 - I/O Subsystems
 - Meters (Watt-Hour, Water, Gas)
- Medical Equipment—Patient/Equipment Isolation
- Security
- Aerospace
- Industrial Controls

Description

LCA710 is a 60V, 1A, 0.5Ω 1-Form-A relay. It features a high peak load current capability of up to 1 Amp.

Approvals

- UL Recognized: File Number E76270
- CSA Certified: File Number LR 43639-10
- Certified to:
 - EN 60950
 - EN 41003

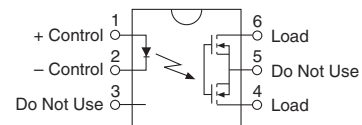
Ordering Information

Part #	Description
LCA710	6 Pin DIP (50/Tube)
LCA710R	6 Pin Low-Profile Surface Mount (50/Tube)
LCA710RTR	6 Pin Low-Profile Surface Mount (1000/Reel)
LCA710S	6 Pin Surface Mount (50/Tube)
LCA710STR	6 Pin Surface Mount (1000/Reel)

Pin Configuration

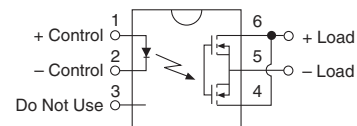
LCA710 Pinout

AC/DC Configuration

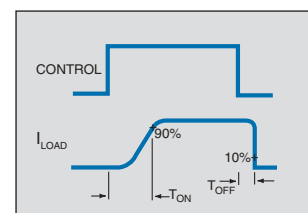


LCA710 Pinout

DC Only Configuration



Switching Characteristics of Normally Open (Form A) Devices



Absolute Maximum Ratings (@ 25°C)

Parameter	Ratings	Units
Blocking Voltage	60	V _P
Reverse Input Voltage	5	V
Input Control Current	50	mA
Peak (10ms)	1	A
Input Power Dissipation ¹	150	mW
Total Power Dissipation ²	800	mW
Isolation Voltage Input to Output	3750	V _{rms}
Operational Temperature	-40 to +85	°C
Storage Temperature	-40 to +125	°C

¹ Derate Linearly 1.33 mw/°C

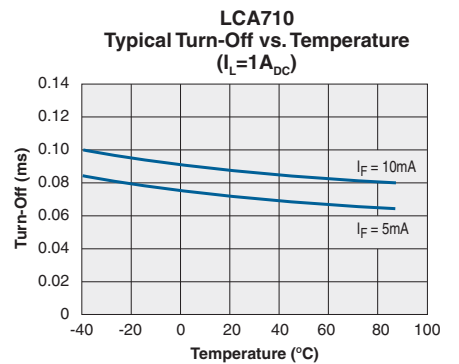
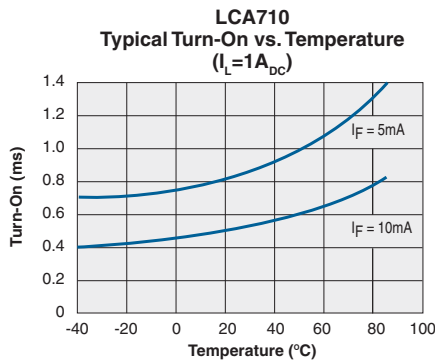
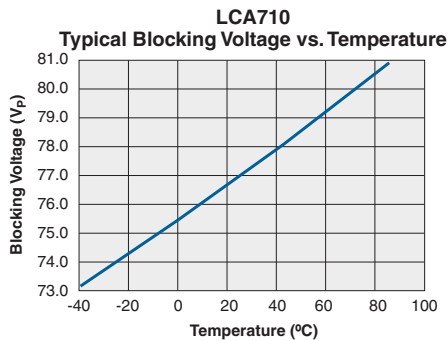
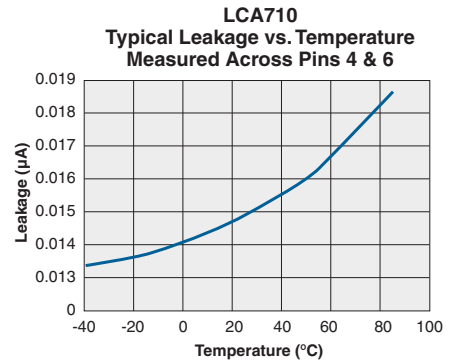
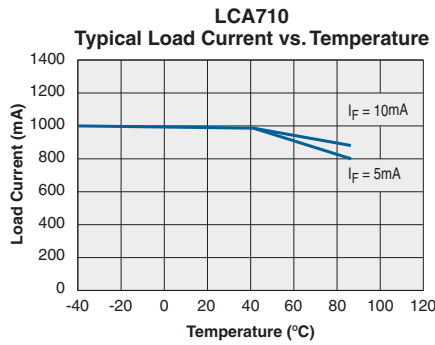
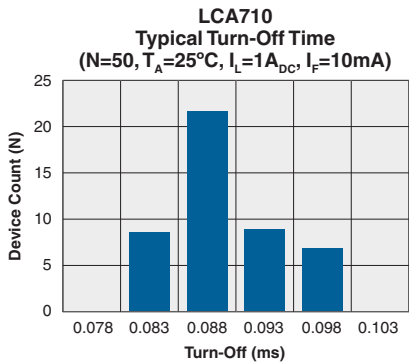
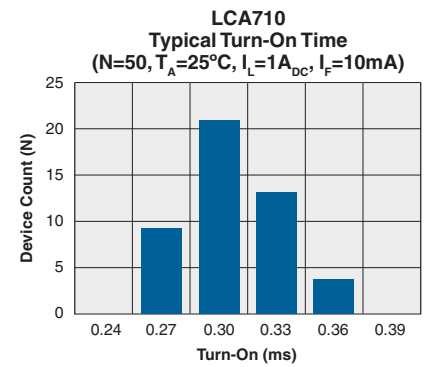
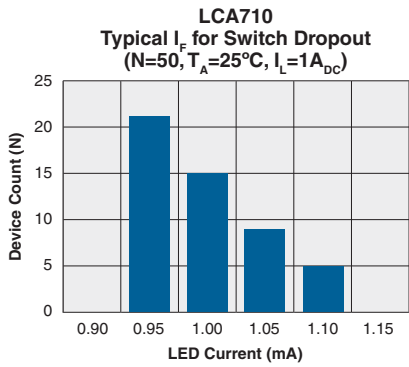
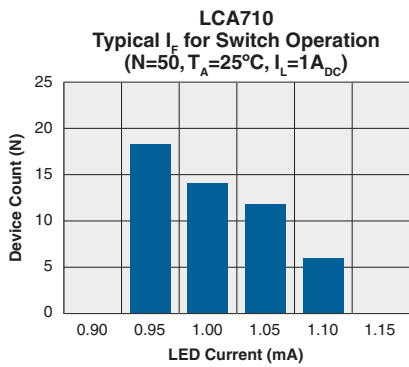
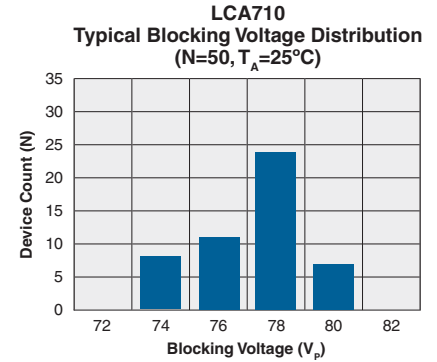
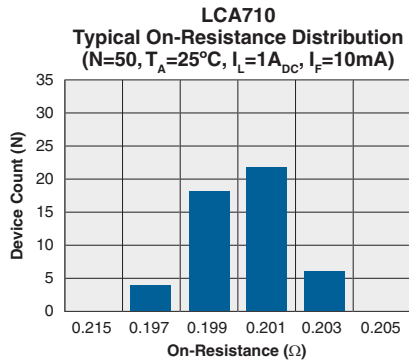
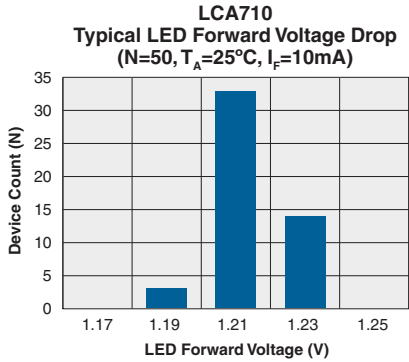
² Derate Linearly 6.67 mw/°C

Absolute Maximum Ratings are stress ratings. Stresses in excess of these ratings can cause permanent damage to the device. Functional operation of the device at conditions beyond those indicated in the operational sections of this data sheet is not implied.

Electrical Characteristics

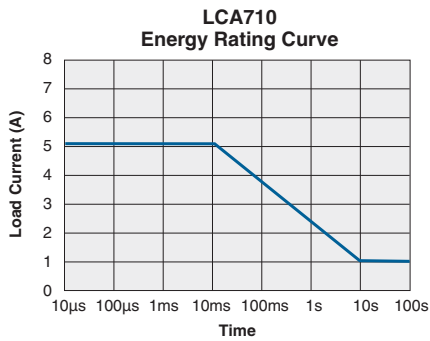
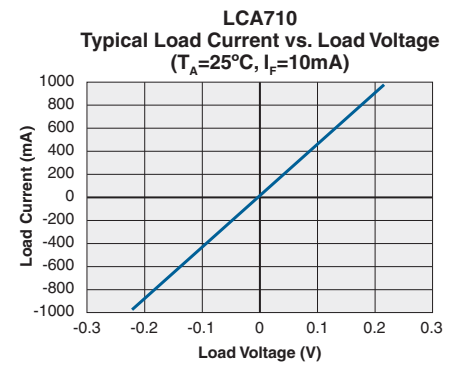
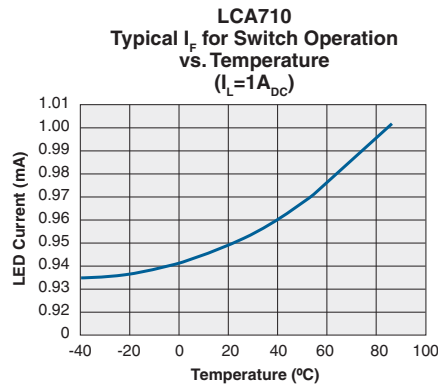
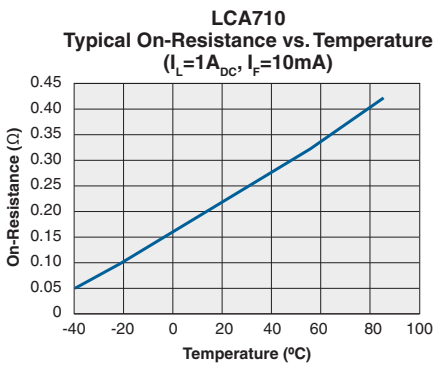
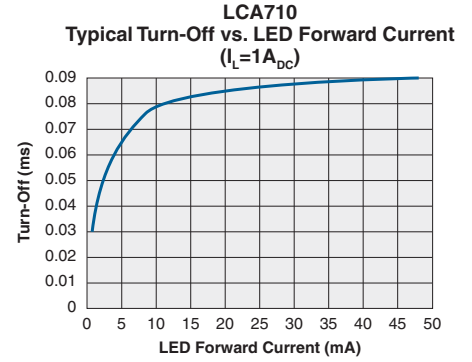
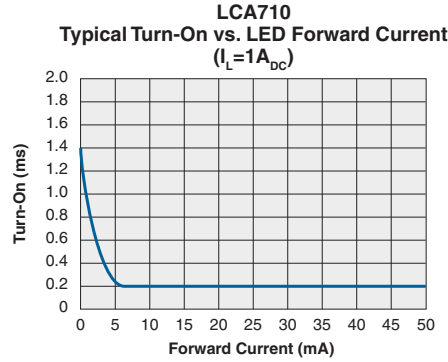
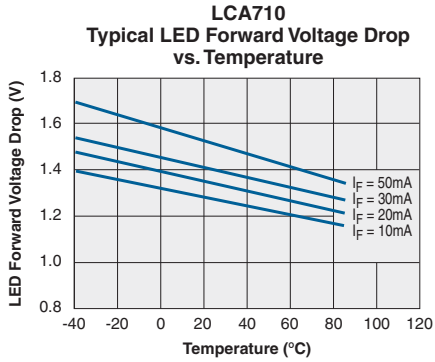
Parameter	Conditions	Symbol	Min	Typ	Max	Units
Output Characteristics @ 25°C						
Load Current						
AC/DC Configuration	Continuous	I _L	-	-	1.0	A
DC Configuration					1.8	
Peak Load Current	10ms	I _{LPK}	-	-	5.0	A
On-Resistance						
AC/DC Configuration	I _L =1A	R _{ON}	-	0.3	0.5	Ω
DC Configuration	I _L =1.8A				0.15	
Off-State Leakage Current	V _L =60V	I _{LEAK}	-	-	1	μA
Switching Speeds						
Turn-On	I _F =10mA, V _L =10V	T _{ON}	-	-	2.5	ms
Turn-Off	I _F =10mA, V _L =10V	T _{OFF}			0.25	
Output Capacitance	0V; f=1MHz	-	-	105	-	pF
Input Characteristics @ 25°C						
Input Control Current	I _L =1A	I _F	-	-	10	mA
Input Dropout Current	-	I _F	0.4	0.7	-	mA
Input Voltage Drop	I _F =10mA	V _F	0.9	1.2	1.4	V
Reverse Input Current	V _R =5V	I _R	-	-	10	μA
Common Characteristics @ 25°C						
Input to Output Capacitance	-	C _{I/O}	-	3	-	pF

PERFORMANCE DATA*



*The Performance data shown in the graphs above is typical of device performance. For guaranteed parameters not indicated in the written specifications, please contact our application department.

PERFORMANCE DATA*



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Manufacturing Information

Soldering

For proper assembly, the component must be processed in accordance with the current revision of IPC/JEDEC standard J-STD-020. Failure to follow the recommended guidelines may cause permanent damage to the device resulting in impaired performance and/or a reduced lifetime expectancy.

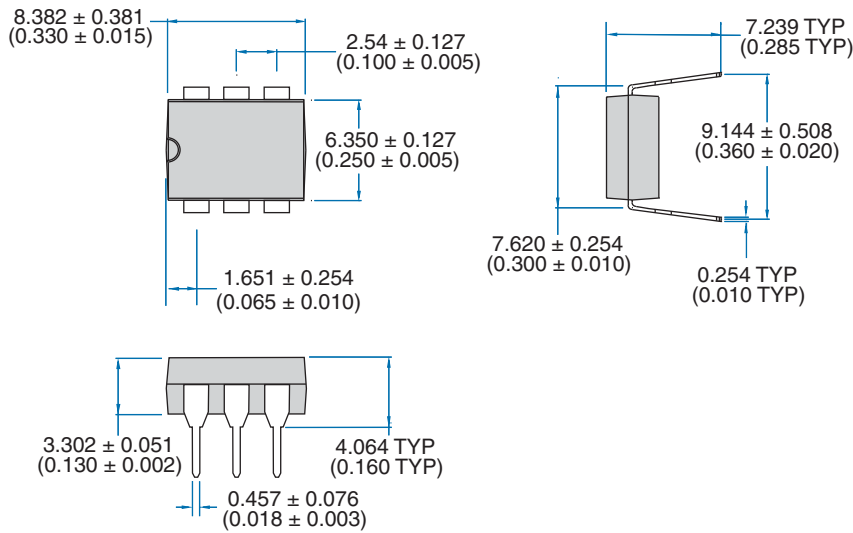
Washing

Clare does not recommend ultrasonic cleaning or the use of chlorinated solvents.

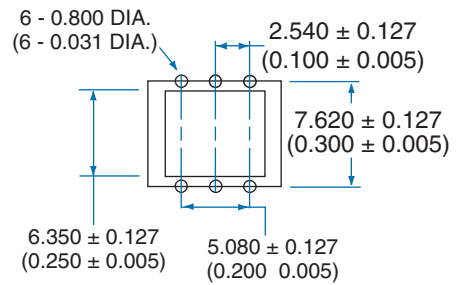


MECHANICAL DIMENSIONS

6-Pin DIP Thru-Hole Package

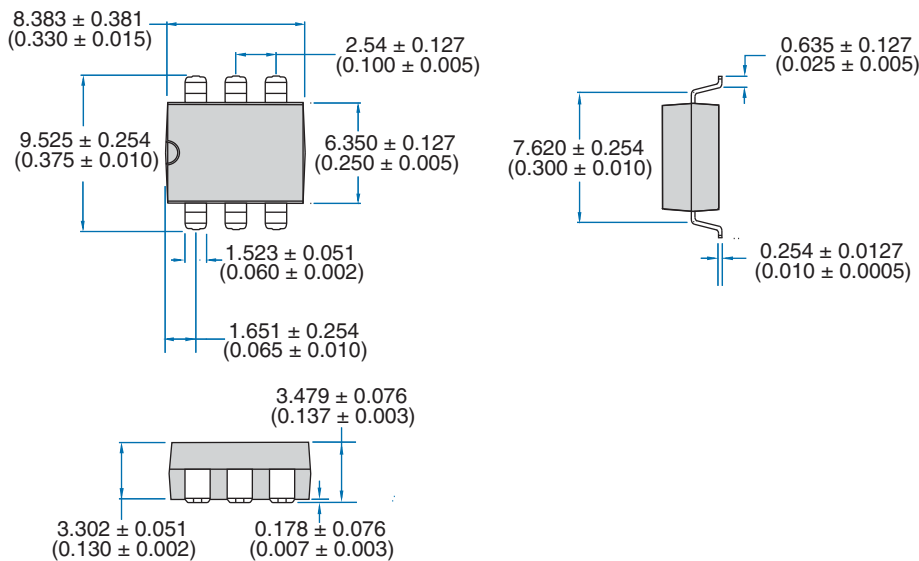


PC Board Pattern

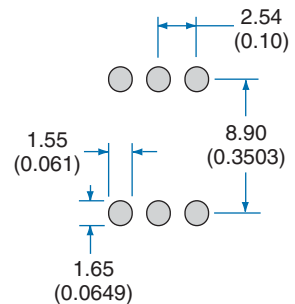


Dimensions
mm
(inches)

6-Pin Surface Mount Low Profile Package ("R" Suffix)

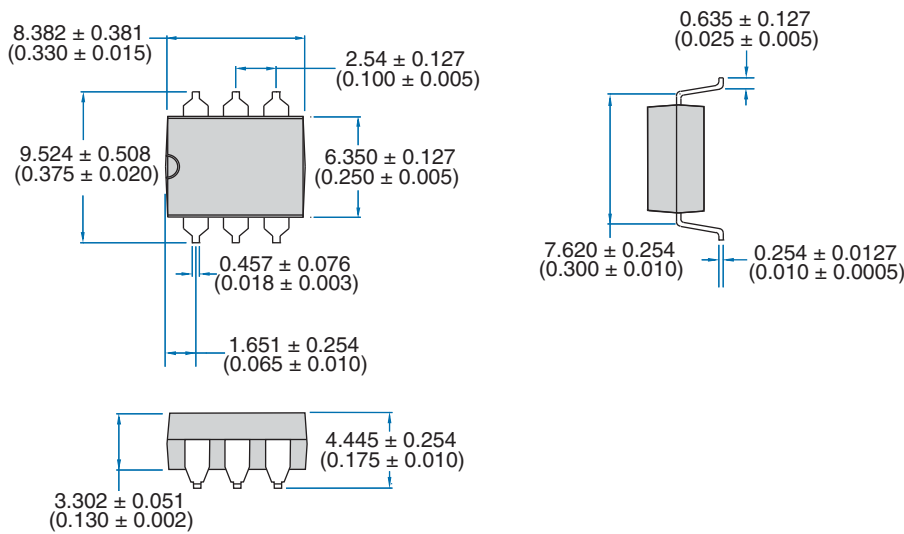


Recommended PCB Land Pattern

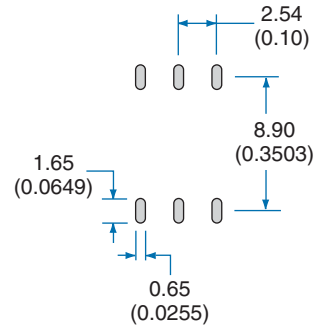


Dimensions
mm
(inches)

6-Pin Surface Mount Package ("S" Suffix)

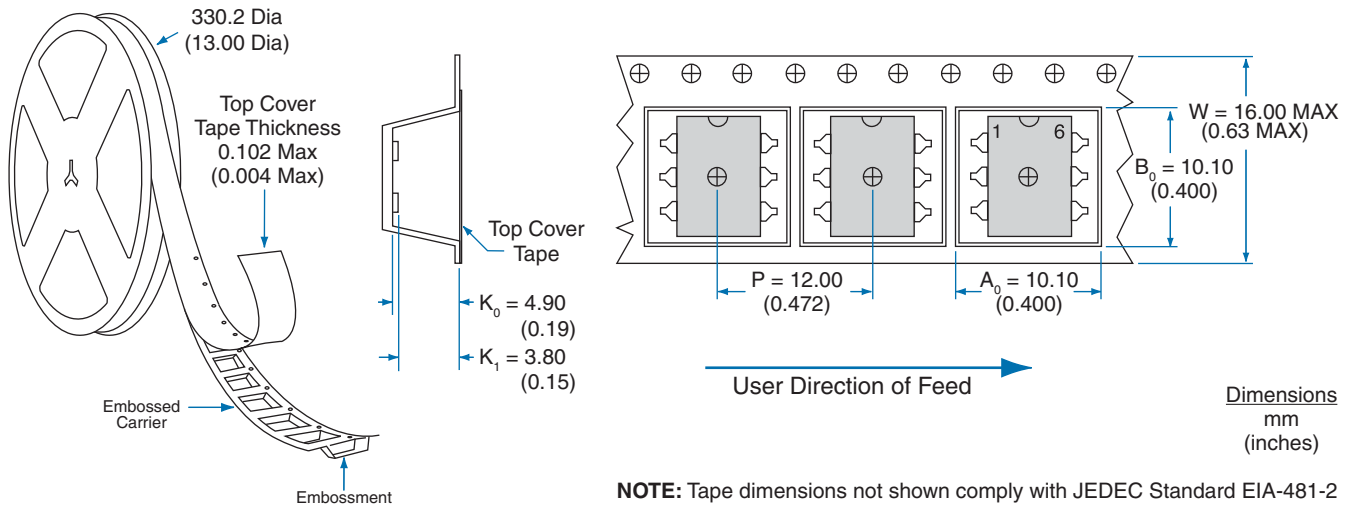


Recommended PCB Land Pattern



Dimensions
mm
(inches)

Tape and Reel Packaging for 6-Pin "R" and "S" Suffix Parts



Dimensions
mm
(inches)

NOTE: Tape dimensions not shown comply with JEDEC Standard EIA-481-2

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