



	LAA127	Units
Load Voltage	250	V
Load Current	170	mA
Max R _{ON}	10	Ω

Description

LAA127 is a 250V, 170mA, 10Ω 2-Form-A relay. It features enhanced load current capability and a very low on-resistance. Current limiting version is available ("L" suffix, see specification for variations in performance).

Features

- Small 8 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
- FCC Compatible
- VDE Compatible
- No EMI/RFI Generation
- Machine Insertable, Wave Solderable
- Surface Mount and Tape & Reel Versions Available

Approvals

- UL Recognized: File Number E76270
- CSA Certified: File Number LR 43639-10
- BSI Certified to:
 - BS EN 60950:1992 (BS7002:1992) Certificate #: 7344
 - BS EN 41003:1993 Certificate #: 7344

Ordering Information

Part #	Description
LAA127	8 Pin DIP (50/Tube)
LAA127P	8 Pin Flatpack (50/Tube)
LAA127PTR	8 Pin Flatpack (1000/Reel)
LAA127S	8 Pin Surface Mount (50/Tube)
LAA127STR	8 Pin Surface Mount (1000/Reel)

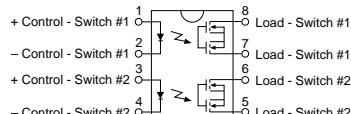
Applications

- Telecommunications
 - Telecom Switching
 - Tip/Ring Circuits
 - Modem Switching (Laptop, Notebook, Pocket Size)
 - Hookswitch
 - Dial Pulsing
 - Ground Start
 - Ringer Injection
- Instrumentation
 - Multiplexers
 - Data Acquisition
 - Electronic Switching
 - I/O Subsystems
 - Meters (Watt-Hour, Water, Gas)
- Medical Equipment-Patient/Equipment Isolation
- Security
- Aerospace
- Industrial Controls

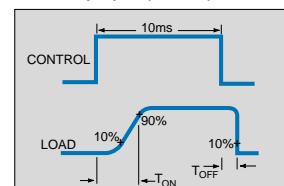
Pin Configuration

LAA127 Pinout

AC/DC Configuration



Switching Characteristics of Normally Open (Form A) Devices



Absolute Maximum Ratings (@ 25° C)

Parameter	Min	Typ	Max	Units
Input Power Dissipation	-	-	150 ¹	mW
Input Control Current Peak (10ms)	-	-	50 1	mA A
Reverse Input Voltage	-	-	5	V
Total Power Dissipation	-	-	800 ²	mW
Isolation Voltage Input to Output	3750	-	-	V_{RMS}
Operational Temperature	-40	-	+85	°C
Storage Temperature	-40	-	+125	°C
Soldering Temperature DIP Package	-	-	+260	°C
Flatpack/Surface Mount Pkg (10 Seconds Max.)	-	-	+220	°C

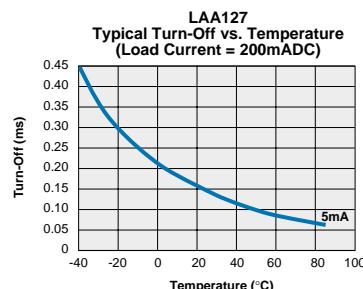
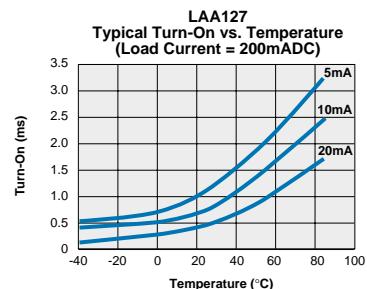
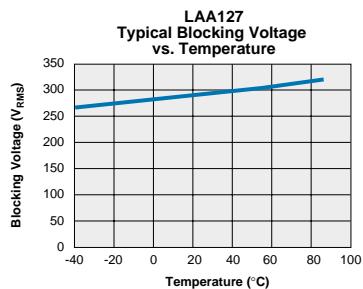
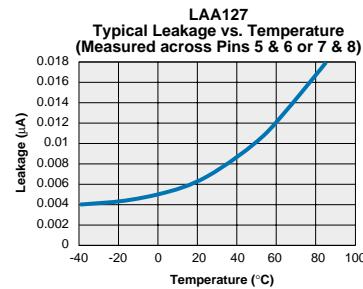
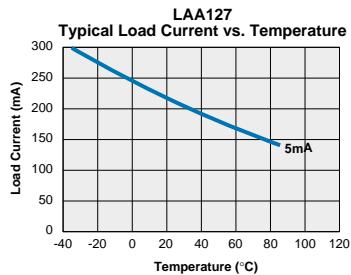
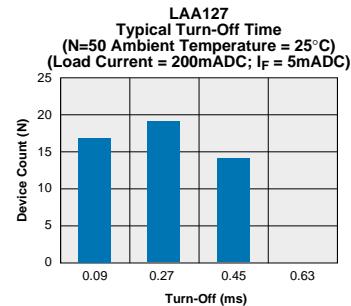
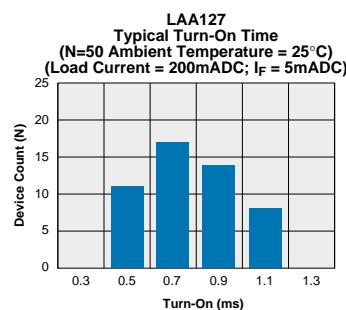
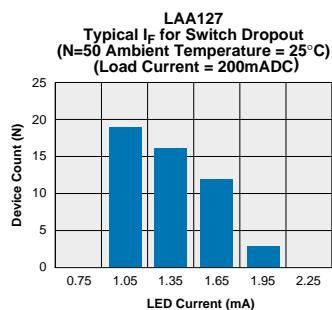
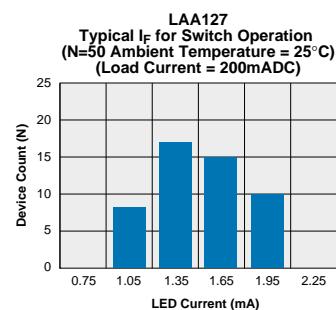
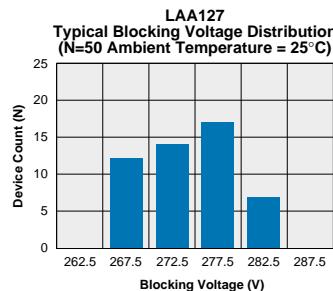
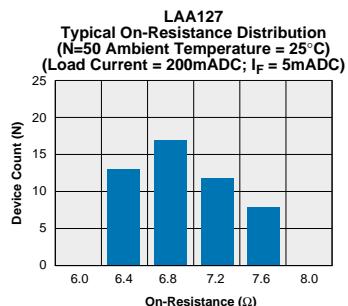
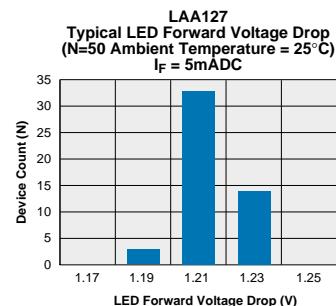
¹ Derate Linearly 1.33 mW/°C² Derate Linearly 6.67 mW/°C

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 these or any other conditions beyond those indicated in the operational sections of this data sheet is not implied. Exposure of the device to the absolute maximum ratings for an extended period may degrade the device and effect its reliability.

Electrical Characteristics

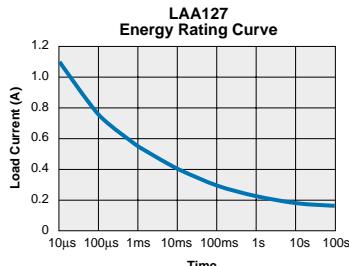
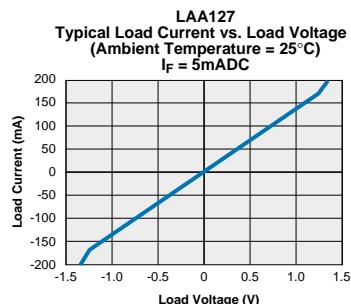
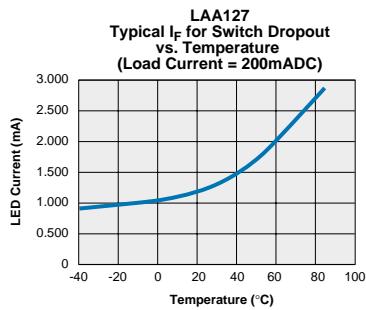
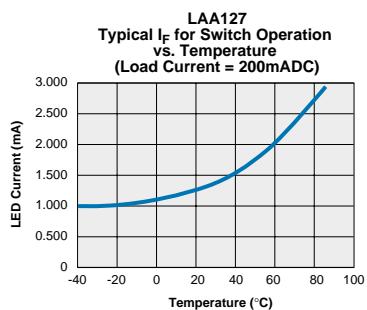
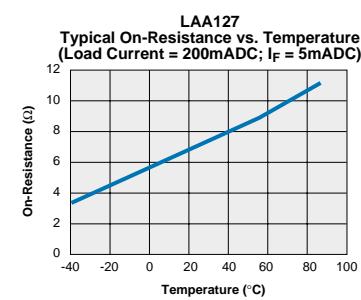
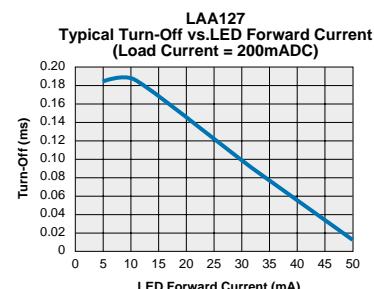
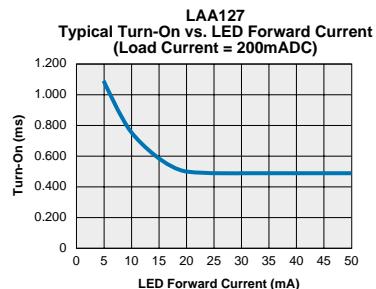
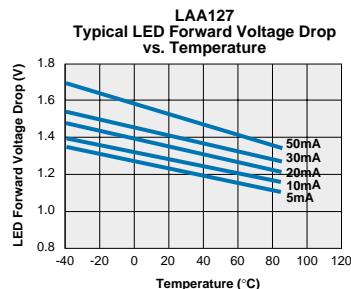
Parameter	Conditions	Symbol	Min	Typ	Max	Units
Output Characteristics @ 25°C						
Load Voltage (Peak)	-	V_L	-	-	250	V
Load Current (Continuous) AC/DC Configuration	-	I_L	-	-	200	mA
Peak Load Current	10ms max	I_{LPK}	-	-	400	mA
On-Resistance AC/DC Configuration	I_L =Load Current	R_{ON}	-	8	10	Ω
Off-State Leakage Current	V_L =250V	I_{LEAK}	-	-	1	μA
Switching Speeds						
Turn-On	I_F =5mA, V_L =10V	T_{ON}	-	-	5	ms
Turn-Off	I_F =5mA, V_L =10V	T_{OFF}	-	-	5	ms
Output Capacitance	50V; f=1MHz	C_{OUT}	-	110	-	pF
Input Characteristics @ 25°C						
Input Control Current	I_L =Load Current	I_F	5	-	50	mA
Input Dropout Current	-	-	0.4	0.7	-	mA
Input Voltage Drop	I_F =5mA	V_F	0.9	1.2	1.4	V
Reverse Input Voltage	-	V_R	-	-	5	V
Reverse Input Current	V_R =5V	I_R	-	-	10	μA
Input to Output Capacitance	-	$C_{I/O}$	-	3	-	pF
Input to Output Isolation	-	$V_{I/O}$	3750	-	-	V_{RMS}

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*



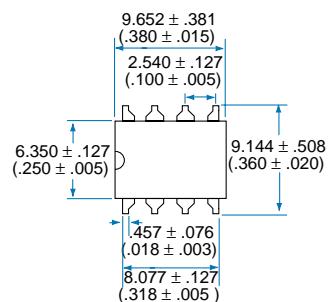
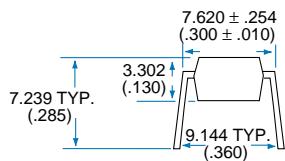
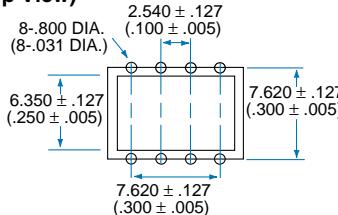
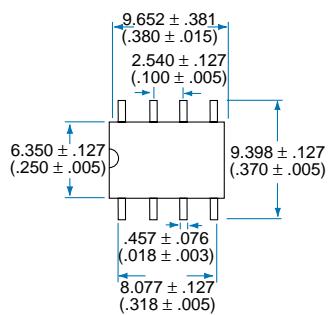
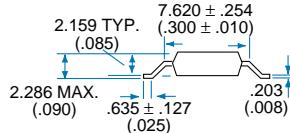
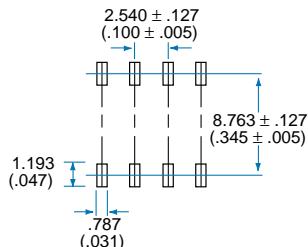
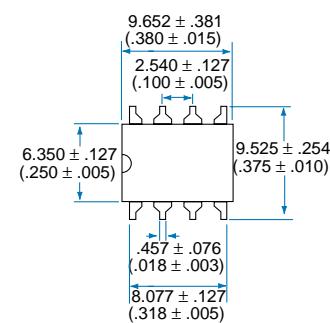
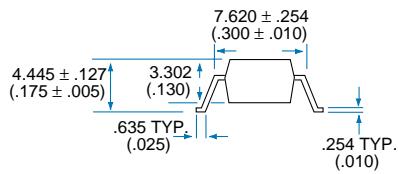
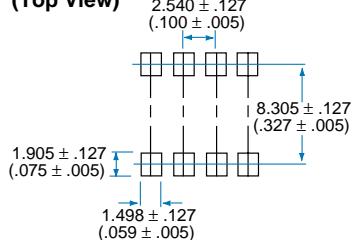
*The Performance data shown in the graphs above is typical of device performance. For guaranteed parameters not indicated in the written specifications, please contact our application department.



CLARE

LAA127

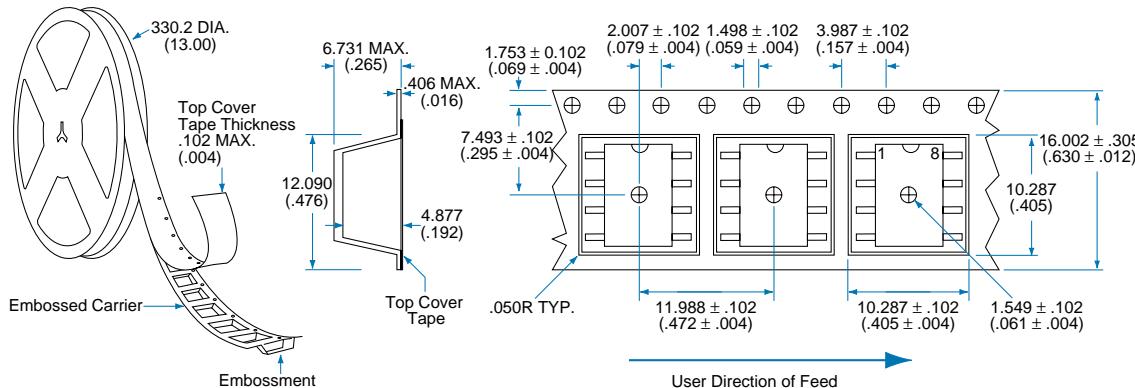
Mechanical Dimensions

8 Pin DIP Through Hole (Standard)**PC Board Pattern
(Top View)****8 Pin Flatpack ("P" Suffix)****PC Board Pattern
(Top View)****8 Pin DIP Surface Mount ("S" Suffix)****PC Board Pattern
(Top View)**

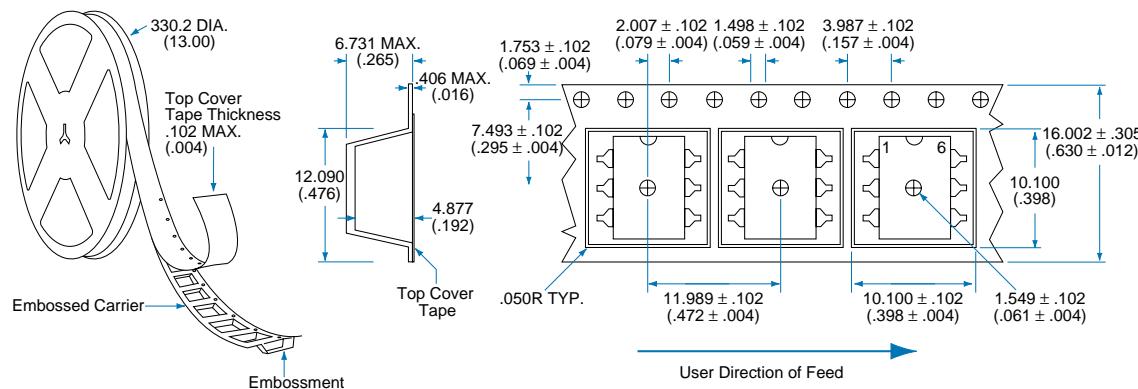
Dimensions
mm
(inches)

Mechanical Dimensions

Tape and Reel Packaging for 8 Pin Flatpack Package



Tape and Reel Packaging for 6 Pin Surface Mount Package



Dimensions
mm
(inches)

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