



DESCRIPTION

PLA110 is a 400V, 150mA, 22Ω 1-Form-A relay. This performance leader combines high peak load voltage capability with enhanced load current capability. Current limiting version is also available. ("L" suffix)

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

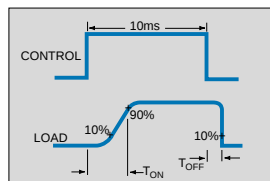
APPROVALS

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

OPTIONS / SUFFIXES

- L: Current Limiting
- S: Surface Mount Package
- TR: Tape & Reel

Switching Characteristics of Normally Open (Form A) Devices



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

RATINGS (@ 25° C)

Parameter	Min	Typ	Max	Units
Input Power Dissipation	-	-	150 ¹	mW
Input Control Current	-	-	50	mA
Peak (10ms)	-	-	1	A
Reverse Input Voltage	-	-	5	V
Total Power Dissipation	-	-	800 ²	mW
Capacitance				
Input to Output	-	3	-	pF
Isolation Voltage				
Input to Output	3750	-	-	V _{RMS}
Operational Temperature	-40	-	+85	°C
Storage Temperature	-40	-	+125	°C
Soldering Temperature				
DIP Package	-	-	+260	°C
Surface Mount Package (10 Seconds Max.)	-	-	+220	°C

¹ Derate Linearly 1.33 mW/°C

² Derate Linearly 6.67 mW/°C

SINGLE POLE OptoMOS® RELAYS

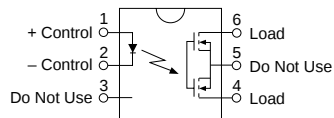
PLA110/PLA110L

SPECIFICATIONS

PLA110						PLA110L			
PARAMETER	CONDITIONS	SYMBOL	MIN	TYP	MAX	MIN	TYP	MAX	UNITS
Output Characteristics @ 25°C									
Load Voltage (Peak)	-	V _L	-	-	400	-	-	400	V
Load Current (Continuous)	-	I _L	-	-	150	-	-	150	mA
AC/DC Configuration	-	I _L	-	-	250	-	-	250	mA
DC Configuration	-	I _L	-	-	250	-	-	250	mA
Peak Load Current	10ms	I _L	-	-	400	-	-	-	mA
On-Resistance	-	R _{ON}	-	-	-	-	-	-	Ω
AC/DC Configuration	I _L =150mA	R _{ON}	-	15	22	-	18	25	Ω
DC Configuration	I _L =250mA	R _{ON}	-	5	7	-	7	9	Ω
Off-State Leakage Current	V _L =400V	I _{LEAK}	-	-	1	-	-	-	μA
Switching Speeds	-	-	-	-	-	-	-	-	-
Turn-On	I _F =5mA, V _L =10V	T _{ON}	-	-	1	-	-	1	ms
Turn-Off	I _F =5mA, V _L =10V	T _{OFF}	-	-	0.25	-	-	0.25	ms
Output Capacitance	50V; f=1MHz	C _{OUT}	-	25	-	-	25	-	pF
Load Current Limiting	-	I _{CL}	-	-	-	190	235	280	mA
Input Characteristics @ 25°C									
Input Control Current	I _L =150mA	I _F	5	-	50	5	-	50	mA
Input Dropout Current	-	I _F	0.4	0.7	-	0.4	0.7	-	mA
Input Voltage Drop	I _F =5mA	V _F	0.9	1.2	1.4	0.9	1.2	1.4	V
Reverse Input Voltage	-	V _R	-	-	5	-	-	5	V
Reverse Input Current	V _R =5V	I _R	-	-	10	-	-	10	μA
Input to Output Capacitance	-	C _{I/O}	-	3	-	-	3	-	pF
Input to Output Isolation	-	V _{I/O}	3750	-	-	3750	-	-	V _{RMS}

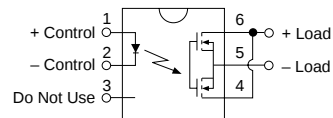
PLA110/PLA110L Pinout

AC/DC Configuration



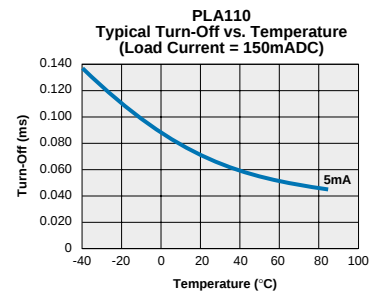
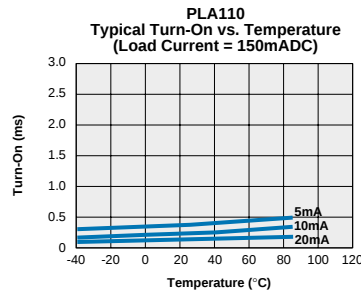
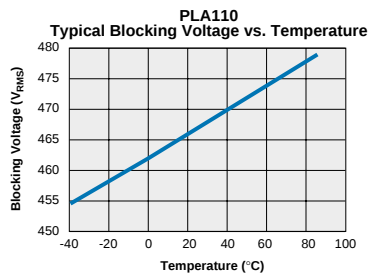
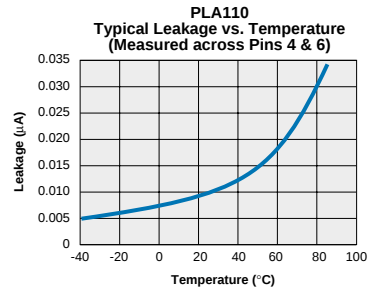
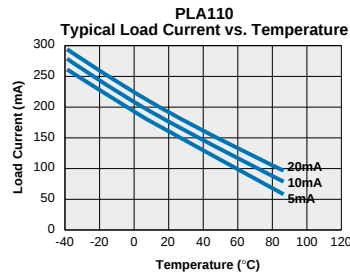
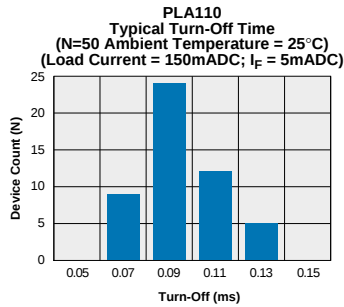
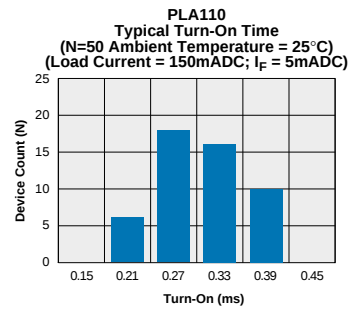
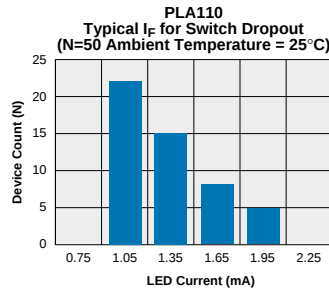
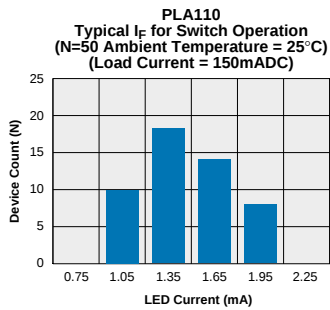
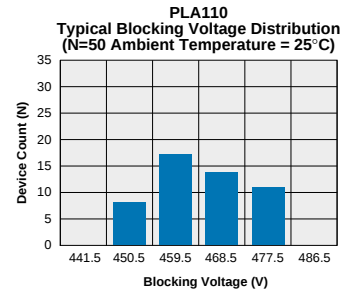
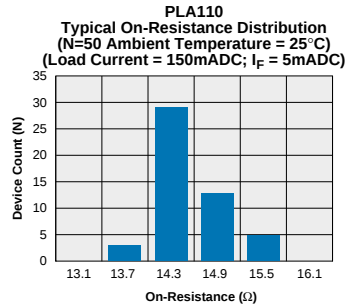
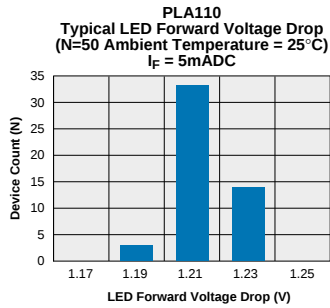
PLA110/PLA110L Pinout

DC Only Configuration



Note: For Mechanical Dimensions See Pages 408-415

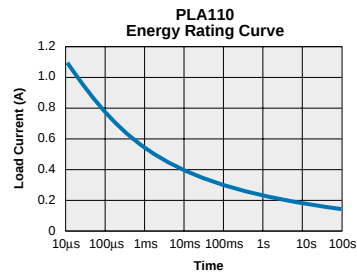
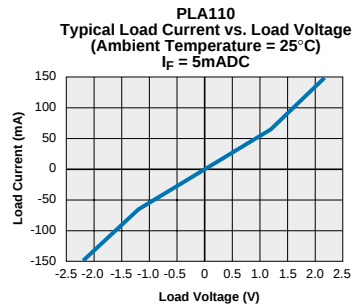
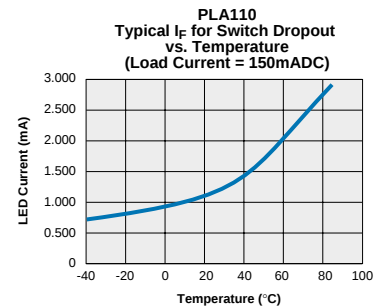
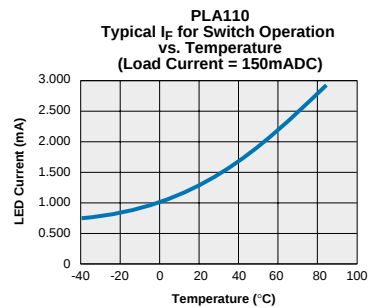
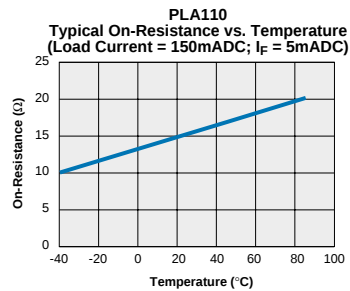
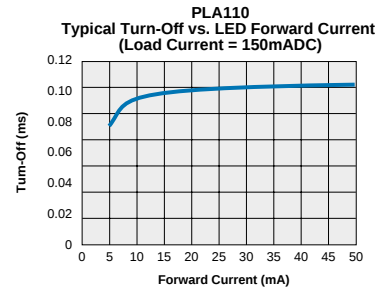
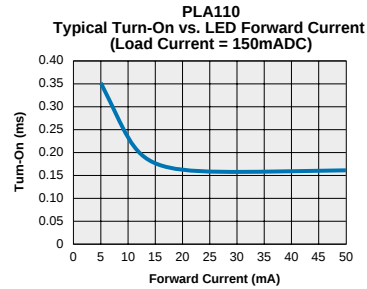
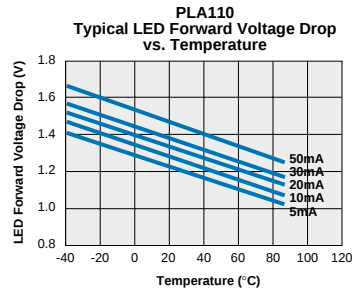
PERFORMANCE DATA



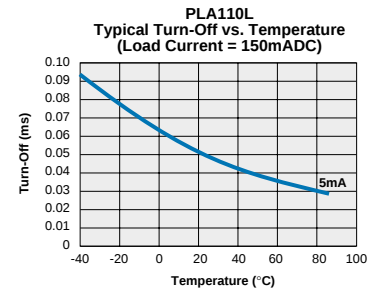
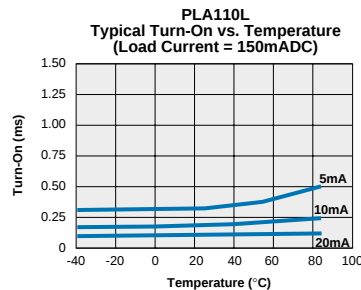
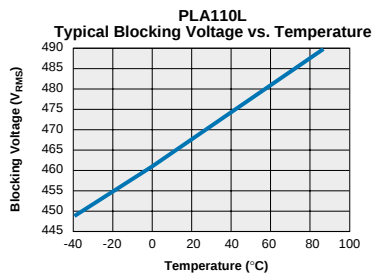
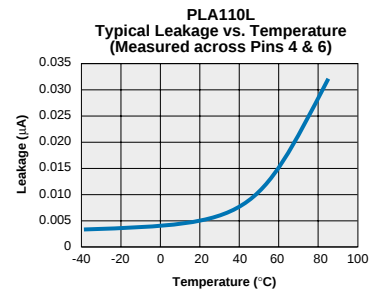
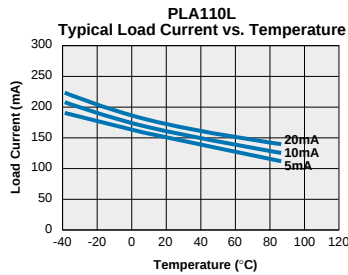
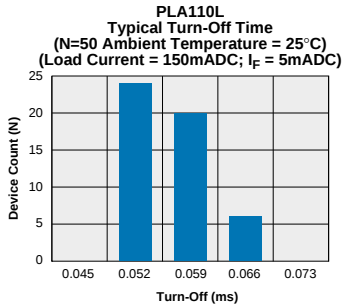
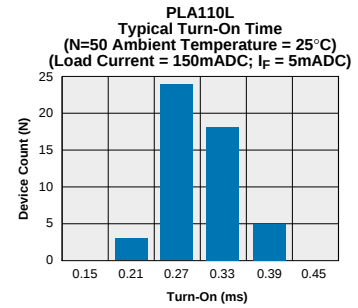
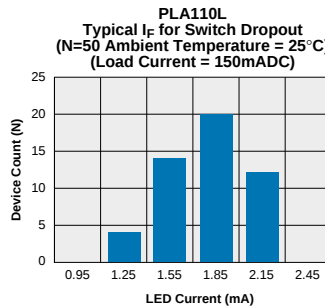
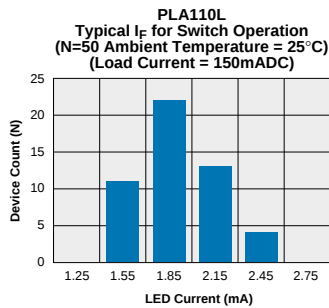
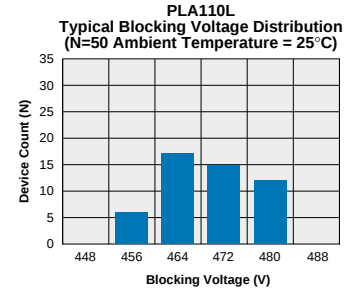
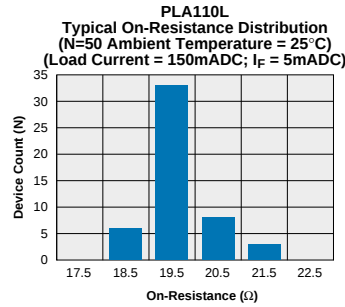
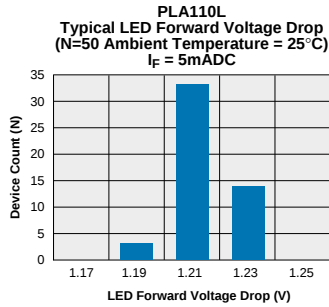
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