PLA132

SINGLE POLE OptoMOS® Relays

	PLA132	Units
Load Voltage	50	V
Load Current	600	mA
Max R_{ON}	1	Ω

Description

PLA132 is a 50V, 600mA, 1Ω 1-Form-A relay. This performance leader features very high load current handling capabilities.

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
- 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
PLA132	6 Pin DIP (50/Tube)
PLA132S	6 Pin Surface Mount (50/Tube)
PLA132STR	6 Pin Surface Mount (1,000/Reel)

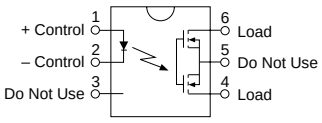
Applications

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

Pin Configuration

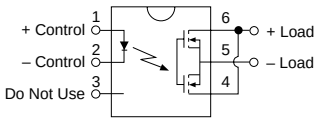
PLA132 Pinout

AC/DC Configuration

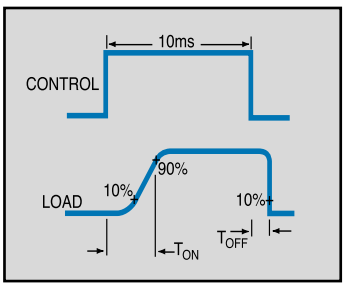


PLA132 Pinout

DC Only 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	-	-	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

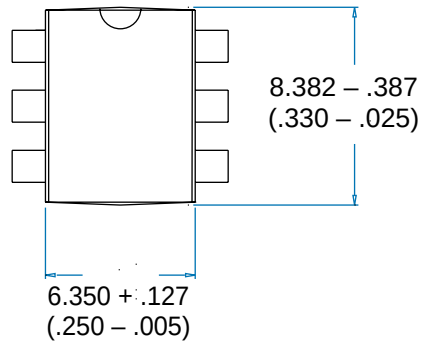
Absolute Maximum Ratings are stress ratings. Stresses in excess of these ratings can cause permanent damage to the device. Functional operation of the device at these or any other conditions beyond those indicated in the operational sections of this data sheet is not implied. Exposure of the device to the absolute maximum ratings for an extended period may degrade the device and effect its reliability.

Electrical Characteristics

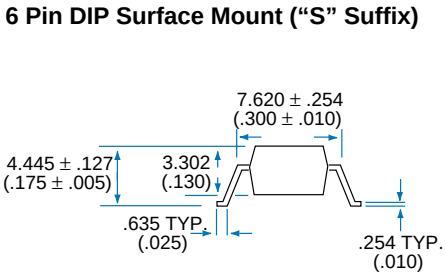
Parameter	Conditions	Symbol	Min	Typ	Max	Units
Output Characteristics @ 25°C						
Load Voltage (Peak)	-	V_L	-	-	50	V
Load Current (Continuous)						
AC/DC Configuration	-	I_L	-	-	600	mA
DC Configuration	-	I_L	-	-	1.2	A
Peak Load Current	10ms	I_{LPK}	-	-	2.0	A
On-Resistance						
AC/DC Configuration	I_L=600mA	R_{ON}	-	-	1.0	Ω
DC Configuration	I_L=1.0A	R_{ON}	-	-	0.3	Ω
Off-State Leakage Current	V_L=50V	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}	-	-	2	ms
Output Capacitance	50V; f=1MHz	-	-	100	-	pF
Input Characteristics @ 25°C						
Input Control Current	I_L=600mA	I_F	5	-	50	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 Voltage	-	V_R	-	-	5	V
Reverse Input Current	V_R=5V	I_R	-	-	10	µA
Common Characteristics @ 25°C						
Input to Output Capacitance	-	$C_{I/O}$	-	3	-	pF
Input to Output Isolation	-	$V_{I/O}$	3750	-	-	V_{RMS}

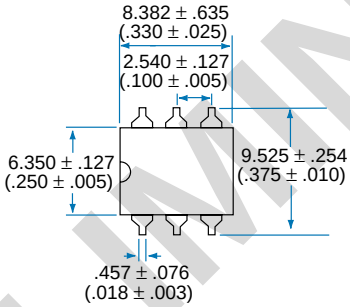
MECHANICAL DIMENSIONS

6 Pin DIP

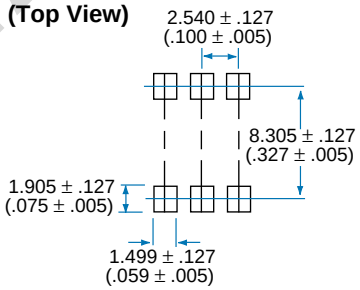


6 Pin DIP Surface Mount ("S" Suffix)

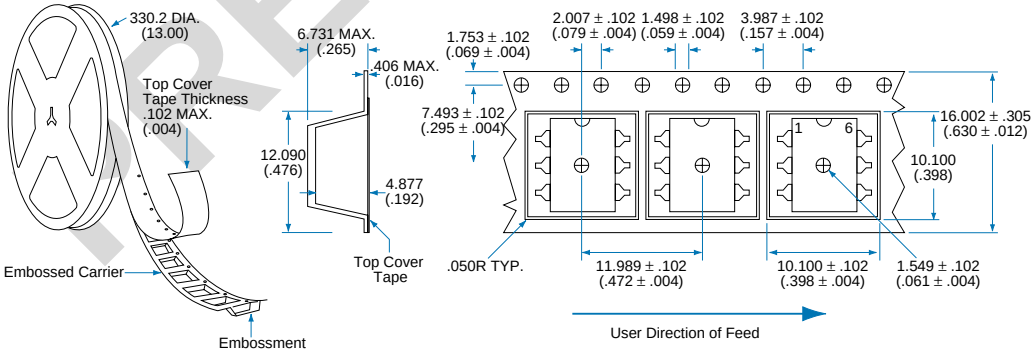




PC Board Pattern (Top View)



Tape and Reel Packaging for 6 Pin Surface Mount Package



Dimensions
mm
(Inches)

CLARE

For additional information please visit our website at: www.clare.com

Specification: DS-PLA132-R0B

6/25/02