



	PLB150	Units
Load Voltage	250	V
Load Current	250	mA
Max R _{ON}	7	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
- FCC Compatible
- VDE Compatible
- No EMI/RFI Generation
- Machine Insertable, Wave Solderable
- Surface Mount and Tape & Reel Versions Available

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

Description

PLB150 is a 250V, 250mA, 7Ω 1-Form-B relay. This performance leader provides high peak load current handling capability and very low on-resistance in a normally closed OptoMOS relay.

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

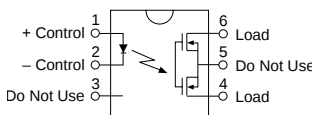
Ordering Information

Part #	Description
PLB150	6 Pin DIP (50/Tube)
PLB150S	6 Pin Surface Mount (50/Tube)
PLB150STR	6 Pin Surface Mount (1000/Reel)

Pin Configuration

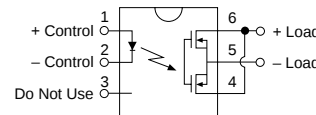
PLB150 Pinout

AC/DC Configuration

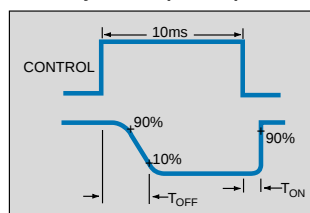


PLB150 Pinout

DC Only Configuration



Switching Characteristics of Normally Closed (Form B) 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
Flatpack/Surface Mount Pkg (10 Seconds Max.)	-	-	+220	°C

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

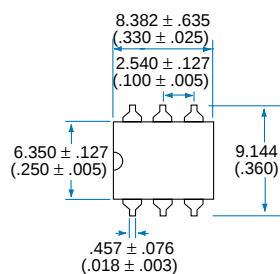
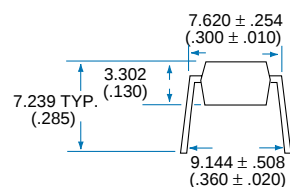
Absolute Maximum Ratings are stress ratings. Functional operation of the device at these or any other conditions beyond those indicated in the operational sections of this data sheet is not implied. Exposure of the device to the absolute maximum ratings for an extended period may degrade the device and 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)	-	I _L	-	-	250	mA
AC/DC Configuration	-	I _L	-	-	350	mA
DC Configuration	-	I _L	-	-	500	mA
Peak Load Current	10ms	I _{LPK}	-	-	500	mA
On-Resistance						
AC/DC Configuration	I _L =250mA	R _{ON}	-	-	7	Ω
DC Configuration	I _L =350mA	R _{ON}	-	-	3	Ω
Off-State Leakage Current	V _L =250V	I _{LEAK}	-	-	1	μA
Switching Speeds						
Turn-On	I _F =5mA, V _L =10V	T _{ON}	-	-	1.0	ms
Turn-Off	I _F =5mA, V _L =10V	T _{OFF}	-	-	2.5	ms
Output Capacitance	50V; f=1MHz	C _{OUT}	-	110	-	pF
Input Characteristics @ 25°C						
Input Control Current	I _L = 250mA	I _F	5	-	50	mA
Input Dropout Current	-	I _F	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}

*NOTE: If both poles operate simultaneously load current must be derated so as not to exceed the package power dissipation value.

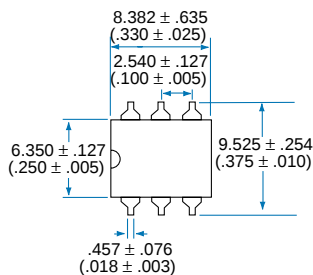
6 Pin DIP Through Hole (Standard)



Top view drawing of a square plate. The outer dimensions are 6.800 DIA. (6.031 DIA.) with a tolerance of $\pm .127$ (.005). The inner dimensions are 5.080 $\pm .127$ (.005) and 7.620 $\pm .127$ (.300 $\pm .005$). The drawing shows a square plate with a smaller square hole in the center. The dimensions are labeled with arrows indicating the measurement locations.

Technical drawing of a mechanical part with dimensions:

- Overall height: $4.445 \pm .127$ ($.175 \pm .005$)
- Top width: $7.620 \pm .254$ ($.300 \pm .010$)
- Inner width: $3.302 \pm .130$ ($.130$)
- Bottom width: $.635$ TYP ($.025$)
- Right side width: $.254$ TYP ($.010$)



(Top View)

Diagram illustrating the top view of a 3x3 grid of squares. The dimensions and tolerances are as follows:

- Top horizontal dimension: $2.540 \pm .127$ ($.100 \pm .005$)
- Right vertical dimension: $8.305 \pm .127$ ($.327 \pm .005$)
- Left vertical dimension: $1.905 \pm .127$ ($.075 \pm .005$)
- Bottom horizontal dimension: $1.499 \pm .127$

Technical drawing of a 35mm film strip showing dimensions and tolerances. The drawing includes a perspective view of the film strip on the left and a detailed cross-sectional view on the right. Key dimensions and tolerances are labeled:

- 330.2 DIA. (13.00)**: Diameter of the film reel.
- Top Cover Tape Thickness .102 MAX. (.004)**: Thickness of the top cover tape.
- Embossed Carrier**: The carrier part of the film strip.
- Embossment**: The embossed part of the film strip.
- 6.731 MAX. (.265)**: Maximum width of the film strip.
- 406 MAX. (.016)**: Maximum width of the film strip.
- 12.090 (.476)**: Width of the film strip.
- 4.877 (.192)**: Width of the film strip.
- Top Cover Tape**: The top cover tape of the film strip.
- .050R TYP.**: Typical radius of the film strip.
- 2.007 ± .102 (.079 ± .004)**: Dimension of the film strip.
- 1.498 ± .102 (.059 ± .004)**: Dimension of the film strip.
- 3.987 ± .102 (.157 ± .004)**: Dimension of the film strip.
- 11.989 ± .102 (.472 ± .004)**: Dimension of the film strip.
- 10.100 ± .102 (.398 ± .004)**: Dimension of the film strip.
- User Direction of Feed**: Indicated by an arrow pointing right.

Rev. 3

CLARE LOCATIONS

Clare Headquarters
78 Cherry Hill Drive
Beverly, MA 01915
Tel: 1-978-524-6700
Fax: 1-978-524-4900
Toll Free: 1-800-27-CLARE

Clare Micronix Division
145 Columbia
Aliso Viejo, CA 92656-1490
Tel: 1-949-831-4622
Fax: 1-949-831-4628

SALES OFFICES

AMERICAS

Americas Headquarters

Clare
78 Cherry Hill Drive
Beverly, MA 01915
Tel: 1-978-524-6700
Fax: 1-978-524-4900
Toll Free: 1-800-27-CLARE

Eastern Region

Clare
P.O. Box 856
Mahwah, NJ 07430
Tel: 1-201-236-0101
Fax: 1-201-236-8685
Toll Free: 1-800-27-CLARE

Central Region

Clare Canada Ltd.
3425 Harvester Road, Suite 202
Burlington, Ontario L7N 3N1
Tel: 1-905-333-9066
Fax: 1-905-333-1824

Western Region

Clare
1852 West 11th Street, #348
Tracy, CA 95376
Tel: 1-209-832-4367
Fax: 1-209-832-4732
Toll Free: 1-800-27-CLARE

Canada

Clare Canada Ltd.
3425 Harvester Road, Suite 202
Burlington, Ontario L7N 3N1
Tel: 1-905-333-9066
Fax: 1-905-333-1824

EUROPE

European Headquarters

CP Clare nv
Bampselaan 17
B-3500 Hasselt (Belgium)
Tel: 32-11-300868
Fax: 32-11-300890

France

Clare France Sales
Lead Rep
99 route de Versailles
91160 Champlan
France
Tel: 33 1 69 79 93 50
Fax: 33 1 69 79 93 59

Germany

Clare Germany Sales
ActiveComp Electronic GmbH
Mitterstrasse 12
85077 Manching
Germany
Tel: 49 8459 3214 10
Fax: 49 8459 3214 29

Italy

C.L.A.R.E.s.a.s.
Via C. Colombo 10/A
I-20066 Melzo (Milano)
Tel: 39-02-95737160
Fax: 39-02-95738829

Sweden

Clare Sales
Comptronic AB
Box 167
S-16329 Spånga
Tel: 46-862-10370
Fax: 46-862-10371

United Kingdom

Clare UK Sales
Marco Polo House
Cook Way
Bindon Road
Taunton
UK-Somerset TA2 6BG
Tel: 44-1-823 352541
Fax: 44-1-823 352797

ASIA PACIFIC

Asian Headquarters

Clare
Room N1016, Chia-Hsin, Bldg II,
10F, No. 96, Sec. 2
Chung Shan North Road
Taipei, Taiwan R.O.C.
Tel: 886-2-2523-6368
Fax: 886-2-2523-6369

<http://www.clare.com>

Clare cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in this Clare product. No circuit patent licenses nor indemnity are expressed or implied. Clare reserves the right to change the specification and circuitry, without notice at any time. The products described in this document are not intended for use in medical implantation or other direct life support applications where malfunction may result in direct physical harm, injury or death to a person.