



	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

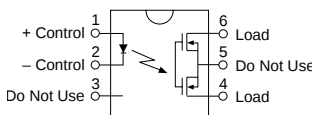
Ordering Information

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

Pin Configuration

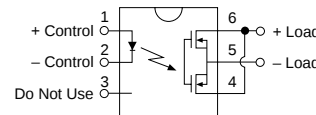
PLB150 Pinout

AC/DC Configuration

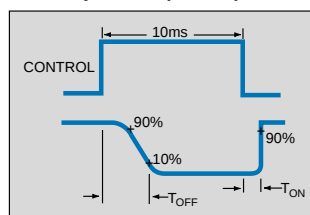


PLB150 Pinout

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

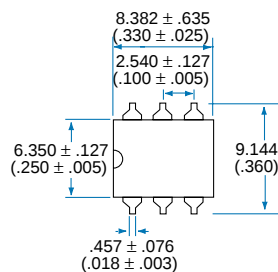
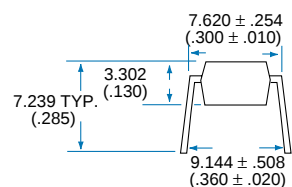
Absolute Maximum Ratings are stress ratings. Functional operation of the device at these or any other conditions beyond those indicated in the operational sections of this data sheet is not implied. Exposure of the device to the absolute maximum ratings for an extended period may degrade the device and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

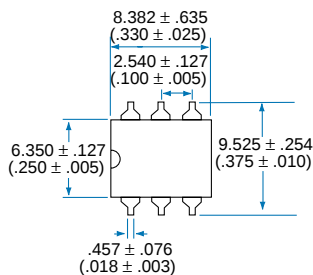
6 Pin DIP Through Hole (Standard)



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) by 7.620 $\pm .127$ (.300 $\pm .005$). The distance between the inner and outer edges is 6.350 $\pm .127$ (.250 $\pm .005$). The distance between the inner and outer edges is 2.540 $\pm .127$ (.100 $\pm .005$).

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: $1.499 \pm .127$

330.2 DIA. (13.00)

Top Cover Tape Thickness .102 MAX. (.004)

Embossed Carrier

Embossment

6.731 MAX. (.265)

406 MAX. (.016)

12.090 (.476)

4.877 (.192)

Top Cover Tape

1.753 ± .102 (.069 ± .004)

2.007 ± .102 (.079 ± .004)

1.498 ± .102 (.059 ± .004)

3.987 ± .102 (.157 ± .004)

7.493 ± .102 (.295 ± .004)

.050R TYP.

11.989 ± .102 (.472 ± .004)

10.100 ± .102 (.398 ± .004)

User Direction of Feed

Rev. 3

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