



	LCB111	Units
Load Voltage	350	V
Load Current	120	mA
Max R <sub>ON</sub>	35	Ω

### Description

LCB111 is a 350V, 120mA, 35Ω, 1-Form-B relay. It features high sensitivity.

### 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<sub>RMS</sub> Input/Output Isolation
- FCC Compatible
- VDE Compatible
- No EMI/RFI Generation
- Machine Insertable, Wave Solderable
- Surface Mount and Tape & Reel Versions Available

### Approvals

- UL/C-UL Recognized Component  
File #: E76270
- BSI Certified - Certificate #: 8416

### 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

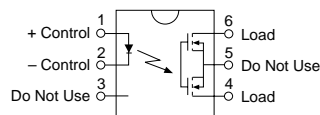
### Ordering Information

Part #	Description
LCB111	6 Pin DIP (50/Tube)
LCB111S	6 Pin Surface Mount (50/Tube)
LCB111STR	6 Pin Surface Mount (1000/Reel)

### Pin Configuration

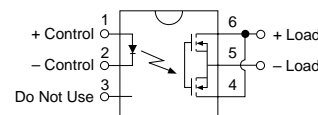
#### LCB111 Pinout

AC/DC Configuration

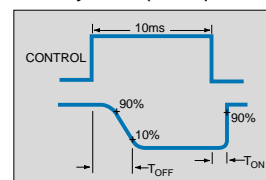


#### LCB111 Pinout

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 <sup>1</sup>	mW
Input Control Current	-	-	50	mA
Peak (10ms)	-	-	1	A
Reverse Input Voltage	-	-	5	V
Total Power Dissipation	-	-	800 <sup>2</sup>	mW
Isolation Voltage Input to Output	3750	-	-	V <sub>RMS</sub>
Operational Temperature	-40	-	+85	°C
Storage Temperature	-40	-	+125	°C
Soldering Temperature				
DIP Package	-	-	+260	°C
Surface Mount Package (10 Seconds Max.)	-	-	+220	°C

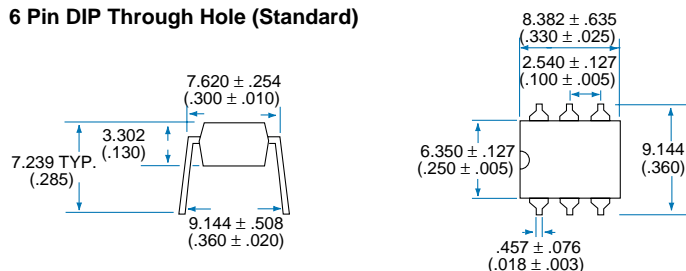
<sup>1</sup> Derate Linearly 1.33 mW/°C<sup>2</sup> Derate Linearly 6.67 mW/°C

*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
<b>Output Characteristics @ 25°C</b>						
Load Voltage (Peak)	-	V <sub>L</sub>	-	-	350	V
Load Current (Continuous)						
AC/DC Configuration	-	I <sub>L</sub>	-	-	120	mA
DC Configuration	-	I <sub>L</sub>	-	-	200	mA
Peak Load Current	10ms	I <sub>L</sub>	-	-	350	mA
On-Resistance						
AC/DC Configuration	I <sub>L</sub> =120mA	R <sub>ON</sub>	-	23	35	Ω
DC Configuration	I <sub>L</sub> =200mA	R <sub>ON</sub>	-	7	10	Ω
Off-State Leakage Current	V <sub>L</sub> =350V	I <sub>LEAK</sub>	-	-	1	μA
Switching Speeds						
Turn-On	I <sub>F</sub> =2mA, V <sub>L</sub> =10V	T <sub>ON</sub>	-	2	5	ms
Turn-Off	I <sub>F</sub> =2mA, V <sub>L</sub> =10V	T <sub>OFF</sub>	-	2	5	ms
Output Capacitance	50V; f=1MHz	C <sub>OUT</sub>	-	25	-	pF
Capacitance Input to Output	-	-	-	3	-	pF
<b>Input Characteristics @ 25°C</b>						
Input Control Current	I <sub>L</sub> =120mA	I <sub>F</sub>	2	1	50	mA
Input Dropout Current	-	I <sub>F</sub>	0.4	0.7	-	mA
Input Voltage Drop	I <sub>F</sub> =2mA	V <sub>F</sub>	0.9	1.2	1.4	V
Reverse Input Voltage	-	V <sub>R</sub>	-	-	5	V
Reverse Input Current	V <sub>R</sub> =5V	I <sub>R</sub>	-	-	10	μA
<b>Common Characteristics @ 25°C</b>						
Input to Output Capacitance	-	C <sub>I/O</sub>	-	3	-	pF
Input to Output Isolation	-	V <sub>I/O</sub>	3750	-	-	V <sub>RMS</sub>

### 6 Pin DIP Through Hole (Standard)



**(Top view)**

6-.800 DIA.  
(.031 DIA.)

2.540 ± .127  
(.100 ± .005)

6.350 ± .127  
(.250 ± .005)

7.620 ± .127  
(.300 ± .005)

5.080 ± .127  
(.200 ± .005)

Technical drawing of a 35mm film strip showing dimensions and components. The drawing includes a side view of the film reel and a top view of the film strip.

**Side View Dimensions:**

- 330.2 DIA. (13.00)
- Top Cover Tape Thickness .102 MAX. (.004)
- 12.090 (.476)
- 6.731 MAX. (.265)
- 406 MAX. (.016)
- 4.877 (.192)
- Top Cover Tape
- Embossment
- Embossed Carrier

**Top View Dimensions:**

- 2.007 ± .102 (.079 ± .004)
- 1.498 ± .102 (.059 ± .004)
- 3.987 ± .102 (.157 ± .004)
- 7.493 ± .102 (.295 ± .004)
- 1.753 ± .102 (.069 ± .004)
- 16.002 ± .305 (.630 ± .012)
- 10.100 (.398)
- 11.989 ± .102 (.472 ± .004)
- 10.100 ± .102 (.398 ± .004)
- 1.549 ± .102 (.061 ± .004)
- .050R TYP.
- User Direction of Feed

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**3**

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