

OptoMOS® Solid State Switches

1 Form A Relays

Specifications

Output Characteristics @ 25°C

Part Number	PLA110	PLA140	PLA150	LCA110	LCA120	LCA125	LCA127	LCA710	OMA160	Units
Contact Form	1 Form A	1 Form A	1 Form A	1 Form A	1 Form A	1 Form A	1 Form A	1 Form A	1 Form A	
Load Voltage (Peak)	400	400	250	350	250	300	250	60	250	V
Load Current (Continuous)										
X-Configuration	150	250	170	120	170	170	170	1000	50	mA
Y-Configuration	210	350	300	200	300	300	300	1800	80	
Peak Load Current (10mSec Max.)	400	500	500	350	400	400	400	5000	100	mA
On-Resistance @ Rated Load Current										
X-Configuration	Typ 15 Max 22	6 8	5 7	23 35	12 20	10 16	8 10	0.3 0.5	50 100	Ω
Y-Configuration	Typ 5 Max 7	2 3	1 2	7 10	4 6	4 5	2 3	0.1 0.15	15 30	
Off State Leakage Current @ Rated Load Voltage	Max 1	1	1	1	1	1	1	1	0.025	μA
Switching Times										
Control Current	5	5	5	2/5	5	5	5	10	10	mA
T _{ON}	Typ 0.4 Max 1	0.6 1.5	0.8 2.5	1.2/1 5/3	1.2 5	1.2 5	3 5	1 2.5	0.085 0.125	mS
T _{OFF}	Typ 0.1 Max 0.25	0.1 0.25	0.1 0.25	1/1 3/3	1 5	1 5	2 5	0.06 0.25	0.050 0.125	mS
Output Capacitance @ 50V, f = 1MHz	Typ 35	110	110	25	50	50	110	220	5	pF

Input Characteristics @ 25°C

Input Control Current I _{LED}	Min 5 Max 100	5 100	5 100	2 100	5 100	5 100	5 100	10 100	10 100	mA
Input Dropout Current I _{LED}	Min 0.4 Typ 0.7	0.4 0.7	0.4 0.7	0.4 0.7	0.4 0.7	0.4 0.7	0.4 0.7	0.4 0.7	0.4 0.7	mA
Input Voltage Drop V _F @ 5mA	Min 0.9 Typ 1.2 Max 1.4	0.9 1.2 1.4	0.9 1.2 1.4	0.9 1.2 1.4	0.9 1.2 1.4	0.9 1.2 1.4	0.9 1.2 1.4	0.9 1.2 1.4	0.9 1.2 1.4	V
Reverse Input Voltage	Max 5	5	5	5	5	5	5	5	5	V
Reverse Input Current	Max 10	10	10	10	10	10	10	10	10	μA

Input to Output Capacitance	Typ 3	3	3	3	3	3	3	3	3	pF
Input to Output Isolation	2500	2500	2500	2500	2500	2500	2500	2500	2500	V _{RMS}
With "E" Suffix (optional)	3750	3750	3750	3750	3750	3750	3750	3750	3750	
Current Limiting ¹ Version Available	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	

¹ Current limiting adds 5 ohms to the total on-resistance of the device.

OptoMOS® Solid State Switches

1 Form B Relays

Specifications

Output Characteristics @ 25°C

Part Number	LCB110	LCB120	LCB127	Units
Contact Form	1 Form B	1 Form B	1 Form B	
Load Voltage (Peak)	350	250	250	V
Load Current (Continuous)				
X-Configuration	120	170	170	mA
Y-Configuration	200	300	300	
Peak Load Current (10mSec Max.)	350	400	400	mA
On-Resistance @ Rated Load Current				
X-Configuration	Typ 23 Max 35	Typ 16 Max 20	Typ 8 Max 10	Ω
Y-Configuration	Typ 7 Max 10	Typ 5 Max 6	Typ 2 Max 3	
Off State Leakage Current @ Rated Load Voltage	Max 1	1	1	μA
Switching Times				
Control Current	5	5	5	mA
T _{ON}	Typ 0.5 Max 3	1 5	2 5	mS
T _{OFF}	Typ 0.7 Max 3	1.2 5	3 5	mS
Output Capacitance @ 50V, f = 1MHz	Typ 25	50	100	pF

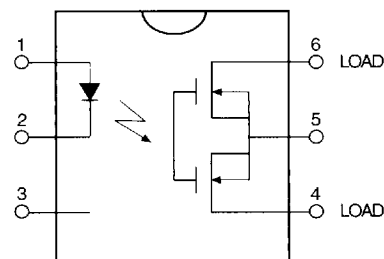
Input Characteristics @ 25°C

Input Control Current				
I _{LED}	Min 5 Max 100	5 100	5 100	mA
Input Dropout Current				
I _{LED}	Min 0.4 Typ 0.7	0.4 0.7	0.4 0.7	mA
Input Voltage Drop				
V _F @ 5mA	Min 0.9 Typ 1.2 Max 1.4	0.9 1.2 1.4	0.9 1.2 1.4	V
Reverse Input Voltage	Max 5	5	5	V
Reverse Input Current	Max 10	10	10	μA

Input to Output Capacitance				
Typ	3	3	3	pF
Input to Output Isolation	2500	2500	2500	V _{RMS}
With "E" Suffix (optional)	3750	3750	3750	
Current Limiting ¹	No	No	No	
Version Available				

¹ Current limiting adds 5 ohms to the total on-resistance of the device.

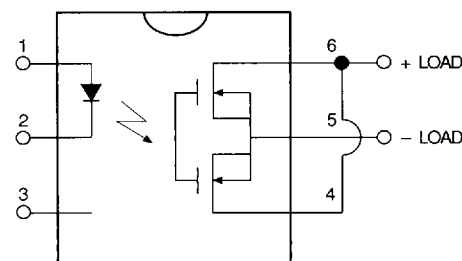
X-Configuration
(AC Configuration)



Pin Connections

1 + Control
2 - Control
3 Do not use
6 Load
5 Do not use
4 Load

Y-Configuration
(DC Configuration)



Pin Connections

1 + Control
2 - Control
3 Do not use
4 and 6 + Load
5 - Load

NOTE:
For Mechanical Dimensions refer to page 20.