

OptoMOS® Solid State Switches

2 Form A Relays

Specifications

Output Characteristics @ 25°C

Part Number	PAA110	PAA140	PAA150	LAA110	LAA120	LAA125	LAA127	OAA160	Units
Contact Form	2 Form A	2 Form A	2 Form A	2 Form A	2 Form A	2 Form A	2 Form A	2 Form A	
Load Voltage (Peak)	400	400	250	350	250	300	250	250	V
Load Current ² (Continuous)	150	250	170	120	170	170	170	50	mA
Peak Load Current (10mSec Max.)	400	500	500	350	400	400	400	100	mA
On-Resistance @ Rated Load Current									
Typ	15	6	5	23	12	10	8	50	Ω
Max	22	8	7	35	20	16	10	100	
Off State Leakage Current @ Rated Load Voltage	Max	1	1	1	1	1	1	0.025	μA
Switching Times									
Control Current	5	5	5	5	5	5	5	10	mA
T _{ON}	Typ	0.4	0.6	0.8	0.7	1.2	1.2	3	mS
	Max	1	1.5	2.5	3	5	5	5	
T _{OFF}	Typ	0.1	0.1	0.1	0.5	1	1	2	mS
	Max	0.25	0.25	0.25	3	5	5	5	
Output Capacitance @ 50V, f = 1MHz	Typ	35	110	110	25	50	50	110	pF

Input Characteristics @ 25°C

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

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

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

² If both poles operate simultaneously load current derates so as not to exceed the package power dissipation value.

► **NOTE:** For Mechanical Dimensions refer to page 20.

OptoMOS® Solid State Switches

2 Form B / 1 Form B – 1 Form A / 1 Form C Relays

Specifications

Output Characteristics @ 25°C

Part Number	LBB110	LBB120	LBB127	LBA110	LBA120	LBA127	LCC110	LCC120	Units
Contact Form	2 Form B	2 Form B	2 Form B	1 Form B 1 Form A	1 Form B 1 Form A	1 Form B 1 Form A	1 Form C	1 Form C	
Load Voltage (Peak)	350	250	250	350	250	250	350	250	V
Load Current (Continuous)	120	170	170	120	170	170	120	170	mA
Peak Load Current (10mSec Max.)	350	400	400	350	400	400	350	400	mA
On-Resistance @ Rated Load Current									
Typ	23	16	8	23	16	8	23	16	Ω
Max	35	20	10	35	20	10	35	20	
Off State Leakage Current @ Rated Load Voltage	Max	1	1	1	1	1	1	1	μ A
Switching Times									
Control Current	5	5	5	5	5	5	8	10	mA
T _{ON}	Typ	0.5	1	—	—	—	—	—	mS
Max	3	5	5	3	5	5	4	5	
T _{OFF}	Typ	0.7	1.2	—	—	—	—	—	mS
Max	3	5	5	3	5	5	4	5	
Output Capacitance @ 50V, f=1MHz	Typ	25	50	110	25	50	110	25	pF

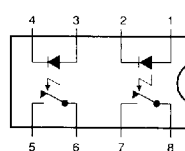
Input Characteristics @ 25°C

Input Control Current I _{LED}	Min	5	5	5	5	5	5	8	10	mA
Max	100	100	100	100	100	100	100	100	100	
Input Dropout Current I _{LED}	Min	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	mA
Typ	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
Input Voltage Drop V _F @ 5mA	Min	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	V
Typ	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
Max	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
Reverse Input Voltage	Max	5	5	5	5	5	5	5	5	V
Reverse Input Current	Max	10	10	10	10	10	10	10	10	μ A

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

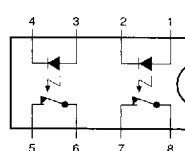
¹ See page 6.

PAA / LAA / OAA



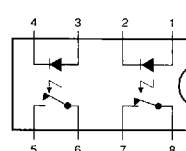
CONNECTIONS:
 1,2 Control, Pole 1
 3,4 Control, Pole 2
 5,6 Normally-Open Pole 2
 7,8 Normally-Open Pole 1

LBB



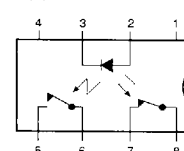
CONNECTIONS:
 1,2 Control, Pole 1
 3,4 Control, Pole 2
 5,6 Normally-Closed Pole 2
 7,8 Normally-Closed Pole 1

LBA



CONNECTIONS:
 1,2 Normally-Closed Control
 3,4 Normally-Open Control
 5,6 Normally-Open Pole
 7,8 Normally-Closed Pole

LCC



CONNECTIONS:
 1 Do not Use
 2 + Control
 3 - Control
 4 Do not Use
 5,6 Normally-Open Pole
 7,8 Normally-Closed Pole