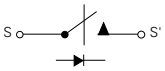
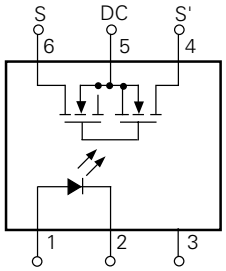
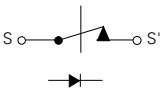
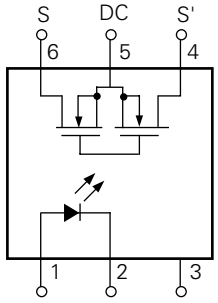
High-Voltage Solid State Relays

Package Outline	Product Group	Contact Form	Base Part Number	Output Characteristics				
				Load Voltage Max. (V)	Load Current Max. Recommended (mA)		ON-Resistance Max. at 25°C (Ω)	
					ac/dc	dc	ac/dc	dc
6 Pin DIP 	Optically Coupled SSRs 	1 Form A 	LH1517AT	150	400	800	3	0.85
			LH1510AT	200	200	350	15	3.75
			LH1518AT	250	130	300	20	5.00
			LH1519AT	250	225	450	10	2.50
			LH1540AT	350	120	250	25	6.25
			LH1546AT	350	120	200	35	10
			LH1500AT	350	150	250	25	6.25
			LH1550AT1[1)]	350	100	—	50	—
			LH1547AT1[6)]	400	95	—	34	—
			LH1525AT	400	120	250	33	8.25
			LH1516AT	400	200	450	10	2.50
	Optically Coupled SSRs 	1 Form B 	LH1511BT	200	200	300	15	3.75
			LH1501BT	350	150	200	25	6.25

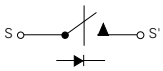
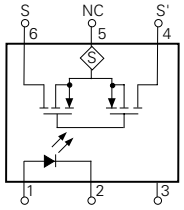
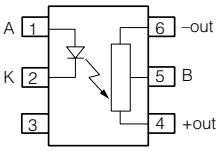
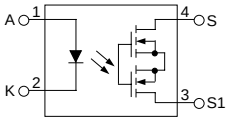
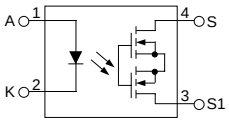
* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Output Characteristics				Input Characteristics					Page
Current Limit (mA) Typ. at 25 °C I_F = 5 mA		Operate Time (msec) Max. at 25 °C I_F = 5 mA		LED Operate Current Min. (mA)		I/O Isolation (Min.) (Vrms)	Package	Current Transfer Ratio %	
ac/dc	dc	t_{on}	t_{off}	25 °C Test Specifications	Recommended Current for 85 °C Operation				
—	—	3.0*	3.0*	2.0	6.0	3750	6-pin	NA	3–79
360	720	2.0*	2.0*	2.0	5.0	5300	6-pin	NA	3–55
200	—	3.0	3.0	2.0	5.0	5300	6-pin	NA	3–83
380	—	3.0	3.0	2.0	5.0	3750	6-pin	NA	3–87
210	—	2.0	2.0	2.0	5.0	5300	6-pin	NA	3–154
200	—	3.0	3.0	2.0	5.0	5300	6-pin	NA	3–177
270	—	2.0	2.0	2.0	5.0	5300	6-pin	NA	3–35
200	—	3.0	3.0	2.0	5.0	5300	6-pin	NA	3–187
210	—	5.0	5.0	2.0	5.0	5300	6-pin	NA	3–182
210	—	0.8	0.4	0.5	2.0	5300	6-pin	NA	3–108
375		3.0*	3.0*	2.0	5.0	3750	6-pin	NA	3–75
—	—	3.0*	3.0*	2.0	5.0	3750	6-pin	NA	3–59
—	—	3.0	3.0	2.0	5.0	3750	6-pin	NA	3–40

* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Package Outline	Product Group	Contact Form	Base Part Number	Output Characteristics				
				Load Voltage Max. (V)	Load Current Max. Recommended (mA)		ON-Resistance Max. at 25°C (Ω)	
					ac/dc	dc	ac/dc	dc
6 Pin DIP 	Instrumentation Relays 	1 Form A 	LH1541AT1[1)]	200	50	—	160	—
	MOSFET Drivers		LH1485AT	300	50 mA input pins 5–4	—	—	—
4 Pin DIP	—		LH1546AD	350	120	—	20	—
4 Pin SOP	—		LH1546AEF	350	120	—	20	—

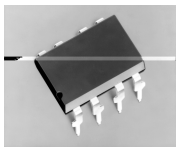
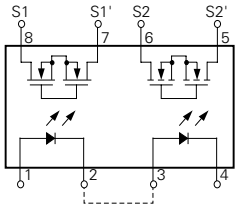
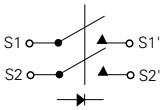
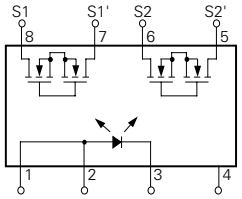
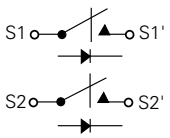
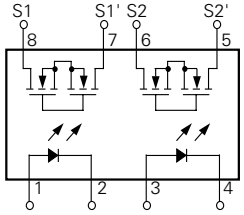
* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Output Characteristics				Input Characteristics					Page
Current Limit (mA) Typ. at 25 °C I_F = 5 mA		Operate Time (msec) Max. at 25 °C I_F = 5 mA		LED Operate Current Min. (mA)		I/O Isolation (Min.) (Vrms)	Package	Current Transfer Ratio %	
ac/dc	dc	t_{on}	t_{off}	25 °C Test Specifications	Recommended Current for 85 °C Operation				
	—	0.25	0.25	2.0	5.0	3750	6-pin	NA	3–159
	—	3.5 µs typ.	300 ns typ.	10	—	5300	6-pin	—	3–31
	—	3.0	3.0	2.0	5.0	5300	4-pin	—	3–169
	—	3.0	3.0	2.0	5.0	3000	4-pin	—	3–173

* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Package Outline	Product Group	Contact Form	Base Part Number	Output Characteristics				
				Load Voltage Max. (V)	Load Current Max. Recommended (mA)		ON-Resistance Max. at 25°C (Ω)	
					ac/dc	dc	ac/dc	dc
8 Pin DIP 	—	1 Form A/B,C 	LH1512BB	200	200	—	15	—
			LH1502BB[3]	350	150	—	25	—
	Optically Coupled SSRs 	2 Form A 	LH1513AB	200	140	—	15	—
			LH1503AB	350	110	—	25	—
	Optically Coupled SSRs 	Dual 1 Form A 	LH1522AB	200	140[5]	—	15	—
			LH1544AB[1]	200	40[5]	—	160	—
			LH1505AB	250	120[5]	—	20	—
			LH1520AB	350	110[5]	—	25	—
			LH1532AB	350	110[5]	—	25	—
			LH1533AB	350	70[5]	—	50	—
			LH1526AB	400	90[5]	—	33	—
			LH1556AB	350	110	—	35	—

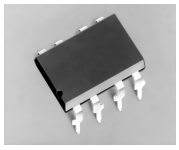
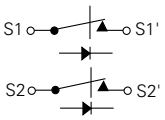
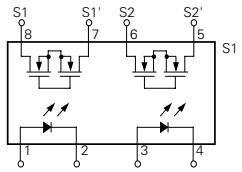
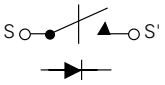
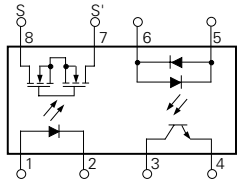
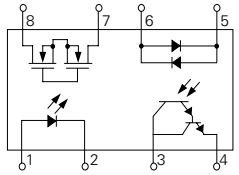
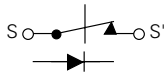
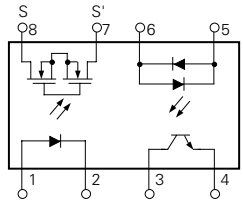
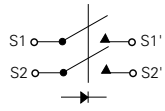
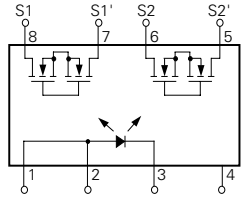
* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Output Characteristics				Input Characteristics					Page
Current Limit (mA) Typ. at 25 °C I_F = 5 mA		Operate Time (msec) Max. at 25 °C I_F = 5 mA		LED Operate Current Min. (mA)		I/O Isolation (Min.) (Vrms)	Package	Current Transfer Ratio %	
ac/dc	dc	t_{on}	t_{off}	25 °C Test Specifications	Recommended Current for 85 °C Operation				
360	—	3.0*	3.0*	2.0	5.0	3750	8-pin	NA	3–61
270	—	6.0*	3.0*	2.0	5.0	3750	8-pin	NA	3–42
360	—	2.5*	2.5*	3.0	8.0	3750	8-pin	NA	3–64
270	—	2.5*	2.5*	3.0	8.0	3750	8-pin	NA	3–45
360	—	2.0*	2.0*	2.0	5.0	3750	8-pin	NA	3–98
—	—	0.25	0.25	2.0	5.0	3750	8-pin	NA	3–164
200	—	4.0	4.0	2.0	5.0	5300	8-pin	NA	3–50
270	—	2.0	2.0	2.0	5.0	5300	8-pin	NA	3–91
210	—	2.0	2.0	2.0	5.0	5300	8-pin	NA	3–134
200	—	3.0	3.0	2.0	5.0	5300	8-pin	NA	3–143
210	—	0.8	0.4	2.0	5.0	3750	8-pin	NA	3–114
210	—	3.0	3.0	2.0	5.0	5300	8-pin	NA	3–190

* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Package Outline	Product Group	Contact Form	Base Part Number	Output Characteristics				
				Load Voltage Max. (V)	Load Current Max. Recommended (mA)		ON-Resistance Max. at 25°C (Ω)	
					ac/dc	dc	ac/dc	dc
8 Pin DIP 	Optically Coupled SSRs 	Dual 1 Form B 	LH1523BB	200	140	—	15	—
			LH1521BB	350	110	—	25	—
	Telecom Switches 	1 Form A/Optocoupler 	LH1529AB	350	120	—	25	—
			LH1529BB	350	120	—	25	—
			LH1549AB	400	120	—	33	—
	Telecom Switches	1 Form A/Darlington 	LH1539AB	350	120	—	25	—
	Telecom Switches 	1 Form B/Optocoupler 	LH1528AB	350	150	—	25	—
	High Frequency Relays (T1 Applications) 	2 Form A 	LH1514AB[4)]	15	150	—	8	—

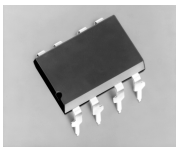
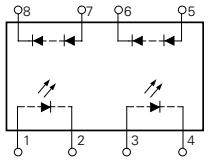
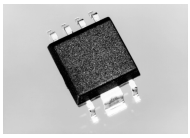
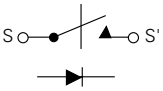
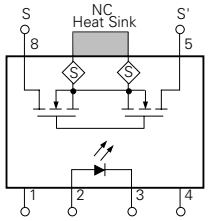
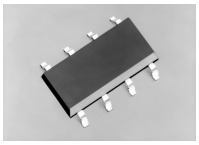
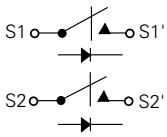
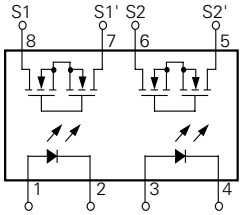
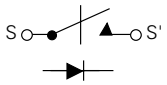
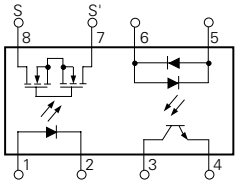
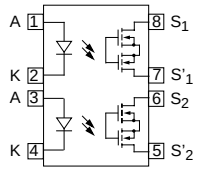
* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Output Characteristics				Input Characteristics					Page
Current Limit (mA) Typ. at 25 °C I_F = 5 mA		Operate Time (msec) Max. at 25 °C I_F = 5 mA		LED Operate Current Min. (mA)		I/O Isolation (Min.) (Vrms)	Package	Current Transfer Ratio %	
ac/dc	dc	t_{on}	t_{off}	25 °C Test Specifications	Recommended Current for 85 °C Operation				
—	—	3.0*	3.0*	2.0	5.0	3750	8-pin	NA	3–103
—	—	3.0	3.0	2.0	5.0	3750	8-pin	NA	3–96
210	—	2.5	2.5	2.0	5.0	5300	8-pin	33	3–126
210	—	2.5	2.5	2.0	5.0	5300	8-pin	100	3–126
210	—	2.0	0.5	1.0	3.0	5300	8-pin	33	3–184
210	—	2.5	2.5	2.0	5.0	3750	8-pin	300	3–146
—	—	3.0	3.0	2.0	5.0	3750	8-pin	33	3–120
—	—	1.0*	1.0*	3.0	8.0	3750	8-pin	NA	3–69

* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Package Outline	Product Group	Contact Form	Base Part Number	Output Characteristics				
				Load Voltage Max. (V)	Load Current Max. Recommended (mA)		ON-Resistance Max. at 25°C (Ω)	
					ac/dc	dc	ac/dc	dc
8 Pin DIP 	MOSFET Driver		LH1262CB	15	—	14 µA I_F =10 mA	—	—
PCMCIA package 	PCMCIA Relays 	1 Form A 	LH1525ACD	400	110	—	33	—
			LH1540ACD	350	110	—	25	—
Flat Pak 	Optically Coupled SSRs 	Dual 1 Form A 	LH1532FP[7)]	350	120	—	25	—
	Telecom Switches 	1 Form A/Optocoupler 	LH1529FP[7)]	350	120	—	25	—
			LH1529GP[7)]	350	120	—	25	—
—	—	Dual 1 Form A 	LH1556FP	350	120	—	20	—

* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.

High-Voltage Solid State Relays

Output Characteristics				Input Characteristics					Page
Current Limit (mA) Typ. at 25 °C I_F = 5 mA		Operate Time (msec) Max. at 25 °C I_F = 5 mA		LED Operate Current Min. (mA)		I/O Isolation (Min.) (Vrms)	Package	Current Transfer Ratio %	
ac/dc	dc	t_{on}	t_{off}	25 °C Test Specifications	Recommended Current for 85 °C Operation				
	—	35 µs I_F=20 mA typ.	90 µs I_F=20 mA typ.	—	—	3750	8-pin	—	3–27
210	—	1.0	0.5	0.5	2.5	1500	8-pin	NA	3–105
210	—	1.0	1.2	1.0	2.5	1500	8-pin	NA	3–151
210	—	2.5	2.5	2.0	5.0	1500	8-pin	—	3–139
210	—	2.5	2.5	2.0	5.0	1500	8-pin	33	3–130
210	—	2.5	2.5	2.0	5.0	1500	8-pin	100	3–130
260	—	3.0	3.0	2.0	5.0	3000	8-pin	—	3–195

* I_F = 10 mA
1. Low capacitance SSR (3.5 pF).
2. Diode offset in I/V characteristics, contact form similar to one half of LH1524 AB.
3. Break-before-make operation.
4. High-frequency SSR (< 50 MHz).
5. Current through both poles operating simultaneously. Load current for individual pole operations is higher.
6. 1 Form A, DC relay.
7. Surface mount Flat-Pack 8-pin.