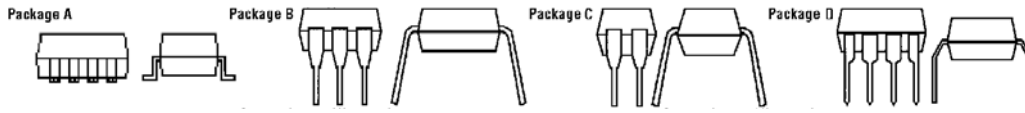


Optoelectronic Components



All optoisolators are UL recognized under file number E90700 and are also available with VDE approval to specification 0884/6.60 certificate number 35025. (-M) white package, formerly Motorola.

High Performance Surface Mount — Transistor Output **— NEW —**

Mfr.'s Type*	Current Transfer Ratio (CTR)		V <sub>OL</sub>			t <sub>PHL/PLH</sub>			Package	
	Min. (%) TA = 25°C	@ I <sub>F</sub> (mA)	Max. (V)	@ I <sub>F</sub> (mA)	V <sub>CC</sub> (V)	R <sub>L</sub> (K)	Max. (s)	@ I <sub>F</sub> (mA)		V <sub>CC</sub> (V)
HCPL-0500	7	16.0	0.4	16.0	4.5	4.1	1.5	16.0	5.0	A
HCPL-0501	19	16.0	0.4	16.0	4.5	1.9	0.8	16.0	5.0	A

High Performance Surface Mount — Darlington Output **— NEW —**

Mfr.'s Type*	Min. (%) TA = 25°C	@ I <sub>F</sub> (mA)	Max. (V)	@ I <sub>F</sub> (mA)	V <sub>CC</sub> (V)	R <sub>L</sub> (K)	Max. (s)	@ I <sub>F</sub> (mA)	V <sub>CC</sub> (V)	Package
HCPL-0700	300	1.6	0.4	1.6	4.5	2.2	10.0	1.6	—	A
HCPL-0701	500	1.6	0.5	1.6	4.5	2.2	35.0	1.6	—	A

\*Pinout: 1 — N.C., 2 — Anode, 3 — Cathode, 4 — N.C., 5 — Ground, 6 — V<sub>O</sub>, 7 — V<sub>S</sub>, 8 — V<sub>CC</sub>.

High Performance Surface Mount — Logic Output **— NEW —**

Mfr.'s Type*	Current Transfer Ratio (CTR)		V <sub>OL</sub>			t <sub>PHL/PLH</sub>			Package			
	Min. (%) TA = 25°C	@ I <sub>F</sub> (mA)	Max. (V)	@ I <sub>F</sub> (mA)	V <sub>CC</sub> (V)	R <sub>L</sub> (K)	Max. (s)	C <sub>L</sub> (PF)				
HCPL-0600	5.0	5.5	2.0	0.6	13	0.6	5.0	5.5	350	75	15	A

\*Pinout: 1 — N.C., 2 — Anode, 3 — Cathode, 4 — N.C., 5 — Ground, 6 — V<sub>O</sub>, 7 — V<sub>S</sub>, 8 — V<sub>CC</sub>. †Sinking.

Phototransistor Output

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> RMS Min.	Current Transfer Ratio 10 mA I <sub>F</sub> (%)		BV <sub>CEO</sub> (Volts) Min.	Typical (μSec.) t <sub>r</sub>	t <sub>f</sub>	Package
		Min.	Max.				
4N25	5.3 kV	20.0	—	30	2.5	2.6	B
4N26	5.3 kV	20.0	—	30	2.5	2.6	B
4N27	5.3 kV	10.0	—	30	2.5	2.6	B
4N28	5.3 kV	10.0	—	30	2.5	2.6	B
4N35	5.3 kV	100.0	—	30	5.0	5.0	B
4N36	5.3 kV	100.0	—	30	5.0	5.0	B
4N37	5.3 kV	100.0	—	30	5.0	5.0	B
CNX36U	5.3 kV	80.0	200	30	5.5	4.0	B
CNY17-1	5.3 kV	40.0	80	70	5.0	5.0	B
CNY17-2	5.3 kV	63.0	125	70	5.0	5.0	B
CNY17-3	5.3 kV	100.0	200	70	5.0	5.0	B
CNY17-4	5.3 kV	160.0	320	70	5.0	5.0	B
CNY17F-2*	5.3 kV	63.0	125	70	5.0	5.0	B
CNY17F-3*	5.3 kV	100.0	200	70	5.0	5.0	B
CNY17F-4*	5.3 kV	160.0	320	70	5.0	5.0	B
H11B1	5.3 kV	50.0	—	30	2.0	2.0	B
H11B817	5.3 kV	50.0	—	35	2.4	2.4	C
H11B817B	5.3 kV	80.0	—	35	2.4	2.4	C
H11B817B	5.3 kV	130.0	—	35	2.4	2.4	C
H11B817C	5.3 kV	200.0	—	35	2.4	2.4	C
H11B817D	5.3 kV	300.0	—	35	2.4	2.4	C
MCT2	5.3 kV	20.0	—	30	10.0	10.0	B
MCT2E	5.3 kV	20.0	—	30	2.5	2.6	B
MOC205-M	3.0 kV	40.0	80	70	1.6	2.2	A
MOC207-M	3.0 kV	100.0	200	70	1.6	2.2	A
MOC215†	3.0 kV	20.0	—	30	3.2	4.7	A
MOC217-M†	3.0 kV	100.0	—	30	3.2	4.7	A
MOC8101*	5.3 kV	50.0	80	30	3.2	4.7	B
MOC8102*	5.3 kV	73.0	117	30	3.2	4.7	B
MOC8103*	5.3 kV	108.0	173	30	3.2	4.7	B
MOC8104*	5.3 kV	160.0	256	30	3.2	4.7	B
TLL117-M	5.3 kV	100.0	—	30	5.0	5.0	B

High-Voltage Phototransistor Output

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> (RMS)	Current Transfer Ratio (%)	BV <sub>CEO</sub> (V)	t <sub>r</sub> (μSec.)	t <sub>f</sub>	Package	
H11D1	5.3 kV	20.0	—	300	5.0	5.0	B
H11D2	5.3 kV	20.0	—	300	5.0	5.0	B
H11D3	5.3 kV	20.0	—	200	5.0	5.0	B

Photodarlington Output

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> (RMS)	Current Transfer Ratio (%)	BV <sub>CEO</sub> (V)	t <sub>r</sub> (μSec.)	t <sub>f</sub>	Package	
4N29	5.3 kV	100.0	—	30	0.6	17.0	B
4N30	5.3 kV	100.0	—	30	0.7	25.0	B
4N32	5.3 kV	500.0	—	30	0.7	100.0	B
4N33	5.3 kV	500.0	—	30	5.0	100.0	B
H11B1	5.3 kV	500.0	—	25	125.0	100.0	B
MOC223-M	3.0 kV	500.0	—	30	1.0	2.0	A
TLL113	5.3 kV	300.0	—	30	0.6	45.0	B

High-Voltage Photodarlington Output

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> (RMS)	Current Transfer Ratio (%)	BV <sub>CEO</sub> (V)	t <sub>r</sub> (μSec.)	t <sub>f</sub>	Package	
H11G1	5.3 kV	1000.0	—	100	5.0	100.0	B
H11G2	5.3 kV	1000.0	—	80	5.0	100.0	B
H11G3	5.3 kV	200.0	—	55	5.0	100.0	B

BC Input Isolators

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> (RMS)	Current Transfer Ratio (%)	BV <sub>CEO</sub> (V)	t <sub>r</sub> (μSec.)	t <sub>f</sub>	Package	
H11AA1	5.3 kV	20.0	—	30	5.0	5.0	B
H11AA4	5.3 kV	100.0	—	30	5.0	5.0	B
H11AA814	5.3 kV	20.0	300	35	18.0	18.0	C
H11AA814B	5.3 kV	50.0	150	35	18.0	18.0	C

\*No base connection. †Low input current version. CTR tested at I<sub>F</sub> = 1 mA.

Dual Optocouplers

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> RMS Min.	Output	Typical Data Rate (NRZ)	Package
MCT6	5.3 kV	Transistor	15 kbit/s	D
MCT62	5.3 kV	Transistor	5 kbit/s	D

Dual-Channel Phototransistor Output

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> RMS Min.	Current Transfer Ratio 10 mA I <sub>F</sub> (%)		BV <sub>CEO</sub> (Volts) Min.	Typical (μSec.) t <sub>r</sub>	t <sub>f</sub>	Package
		Min.	Max.				
MOC207-M	3.0 kV	100	200	70	1.6	2.2	A
MOC213-M	3.0 kV	100	—	30	3.2	4.7	A
MOC217*	3.0 kV	100	—	30	3.2	4.7	A

Dual-Channel Photodarlington Output

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> (RMS)	Current Transfer Ratio (%)	BV <sub>CEO</sub> (V)	t <sub>r</sub> (μSec.)	t <sub>f</sub>	Package	
MOC223-M	3.0 kV	500	—	30	1.0	2.0	A

\*Low input current version. CTR tested at I<sub>F</sub> = 1 mA.

Schmitt Trigger Output Optocouplers

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> RMS	Turn On Current I <sub>on</sub>	Hysteresis I <sub>off/Ion</sub> Ratio		Output Voltage Max.*	Operating Voltage		Package
			Min.	Max.		Min.	Max.	
H11L1-M	5.3 kV	1.6 mA	0.50	0.90	0.4 V	3 V	16 V	B
H11L2-M	5.3 kV	10.0 mA	0.50	0.90	0.4 V	3 V	16 V	B
H11L3-M	5.3 kV	5.0 mA	0.50	0.90	0.4 V	3 V	16 V	B
H11N1-M	5.3 kV	3.2 mA	0.65	0.95	0.5 V	4 V	15 V	B

\*@ I<sub>F</sub> = I<sub>on</sub> max.

High Speed Optocouplers

Isolation voltage V<sub>IO</sub> RMS minimum = 2.5 kV.

Mfr.'s Type	Input	Output	Typical Data Rate (NRZ)	Package
6N135	LED	Transistor	1 Mbit/s	D
6N136	LED	Transistor	1 Mbit/s	D
6N137	LED	10 TTL Loads, Open Collector	10 Mbit/s	D
6N139	LED	Darlington	100 Kbit/s	D
HCPL-2530	Dual LED	Dual Transistor	1 Mbit/s	D
HCPL-2601	LED	8 TTL Loads, Open Collector	10 Mbit/s	D
HCPL-2630	Dual LED	8 TTL Loads, Open Coll., Dual Logic	10 Mbit/s	D
HCPL-2631	Dual LED	8 TTL Loads, Open Coll., Dual Logic	10 Mbit/s	D
HCPL-2731	LED	Darlington	100 Kbit/s	D
HCPL-3700	LED/Buffer IC	Darlington	Line Monitor	D
MID400	Line Input	Logic, 10 TTL Loads	Line Monitor	D

Bilateral Analog Fet Optocouplers

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> (RMS)	On-State Resistance Max. Ohms	Off-State Resistance Min. Ohms	Breakdown Voltage	Package
H11F1	5.3 kV	200	300 M	30	B
H11F3	5.3 kV	470	300 M	15	B

Triac Driver Output Optocouplers

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> (RMS)	I <sub>F</sub> Trigger Max.	Blocking Voltage Min.	Typical dv/dt V/μSec. Static	Package
MOC3010-M	5.3 kV	15 mA	250 V	10	B
MOC3011-M	5.3 kV	10 mA	250 V	10	B
MOC3012-M	5.3 kV	5 mA	250 V	10	B
MOC3021-M	5.3 kV	15 mA	400 V	10	B
MOC3022-M	5.3 kV	10 mA	400 V	10	B
MOC3023-M	5.3 kV	5 mA	400 V	10	B
MOC3031-M*	5.3 kV	15 mA	250 V	2000	B
MOC3032-M*	5.3 kV	10 mA	250 V	2000	B
MOC3033-M*	5.3 kV	5 mA	250 V	2000	B
MOC3041-M*	5.3 kV	15 mA	400 V	2000	B
MOC3042-M*	5.3 kV	10 mA	400 V	2000	B
MOC3043-M*	5.3 kV	5 mA	400 V	2000	B
MOC3052-M	5.3 kV	10 mA	600 V	—	B
MOC3061-M*	5.3 kV	15 mA	600 V	1500	B
MOC3062-M*	5.3 kV	10 mA	600 V	1500	B
MOC3063-M*	5.3 kV	5 mA	600 V	1500	B
MOC3081-M*	5.3 kV	15 mA	800 V	1500	B
MOC3082-M*	5.3 kV	10 mA	800 V	1500	B

\*Zero-Crossing Triac Driver Outputs.

Photo SCR Output Optocouplers

Mfr.'s Type	Isolation Voltage V <sub>IO</sub> (RMS)	I <sub>F</sub> Trigger (Max.)	I <sub>o</sub> 100 (°C) (Max.) μB	Blocking Voltage (Min.)	Package
H11C1	5.3 kV	20 mA	50	200	B
H11C3	5.3 kV	30 mA	50	200	B
H11C4	5.3 kV	20 mA	150	400	B