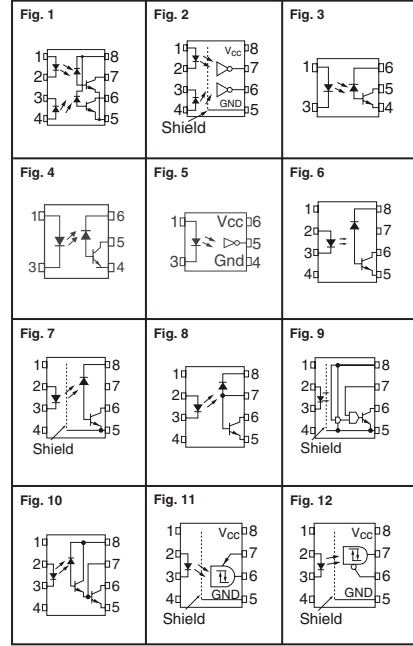


Fig.	Pkg.	Output Current			Data Rate Typical (bit/s)	Max. Supply Voltage (V)	Isolation Voltage (Vrms)	Digi-Key Part No.	Price Each			Digi-Key Part No.	Tape and Reel	
		Min. (mA)	@IF (mA)	@VO (V)					1	10	100		Qty.	Pricing
1	Dip	1.12	16	0.4	1M	15	2,500	TLP2530F-ND	1.96	1.57	1.22	—	—	—
	Dip	3.04	16	0.4	1M	15	2,500	TLP2531F-ND	1.96	1.57	1.22	—	—	—
2	Dip	16	5	0.6	10M	5.5	2,500	TLP2630F-ND	1.63	1.31	1.02	—	—	—
	Dip	13	5	0.6	10M	5.5	2,500	TLP2631F-ND	1.63	1.31	1.02	—	—	—
3	SMD	1.6	16	0.4	1M	15	2,500	TLP2631TP1FCT-ND	1.71	1.38	1.07	TLP2631TP1FTR-ND	1,500	971.94/M
	SMD	1.6	16	0.4	1M	15	2,500	TLP112FCT-ND	1.17	.94	.71	TLP112FTR-ND	3,000	599.39/M
4	SMD	1.6	16	0.4	1M	15	2,500	TLP112AFCT-ND	1.31	1.05	.79	TLP112AFTR-ND	3,000	669.08/M
	SMD	13	10	0.4	10M	5.5	2,500	TLP113FCT-ND	1.27	1.02	.77	TLP113FTR-ND	3,000	650.50/M
5	SMD	13	10	0.4	10M	5.5	2,500	TLP115FCT-ND	2.00	1.61	1.25	—	—	—
	SMD	13	5	0.4	10M	5.5	2,500	TLP115AF-ND	2.74	2.39	1.78	—	—	—
6	Dip	1.6	16	0.4	1M	15	2,500	TLP115AFCT-ND	5.23	4.19	3.14	TLP115AFTR-ND	3,000	1338.75/M
	Dip	1.6	16	0.4	1M	15	2,500	TLP550-ND	1.00	.80	.60	—	—	—
7	Dip	1.6	16	0.4	1M	15	2,500	TLP550F-ND	1.00	.80	.60	—	—	—
	Dip	3.2	16	0.4	1M	15	2,500	TLP559F-ND	1.36	1.09	.82	—	—	—
8	Dip	1.12	16	0.4	1M	15	2,500	6N135TF-ND	.87	.73	.59	—	—	—
	Dip	3.04	16	0.4	1M	15	2,500	6N136TF-ND	.70	.59	.47	—	—	—
9	Dip	13	5	0.6	10M	5.5	2,500	6N137TF-ND	.70	.59	.47	—	—	—
	Dip	13	5	0.6	10M	5.5	2,500	TLP2601F-ND	1.45	1.17	.88	—	—	—
10	SMD	13	5	0.6	10M	5.5	2,500	TLP2601TP1CT-ND	1.63	1.31	1.02	—	—	—
	Dip	4.8	1.6	0.4	100K	18	2,500	6N138TF-ND	.78	.66	.53	—	—	—
11	Dip	2	0.5	0.4	100K	18	2,500	6N139TF-ND	.70	.59	.47	—	—	—
	Dip	25	1.6	0.5	5M	20	2,500	TLP558F-ND	2.61	2.10	1.63	—	—	—
12	Dip	25	1.6	0.5	5M	20	2,500	TLP2200F-ND	1.80	1.44	1.12	—	—	—
	SOP	25	1.6	0.5	5M	20	2,500	TLP2200CT-ND	1.92	1.54	1.20	TLP2200TR-ND	1,500	1084.86/M
12	SOP	25	1.6	0.5	5M	20	2,500	TLP2200FCT-ND	1.92	1.54	1.20	TLP2200FTR-ND	1,500	1084.86/M

† Cut Tape ♦ RoHS Compliant * Lead form SMD



Photovoltaic Couplers

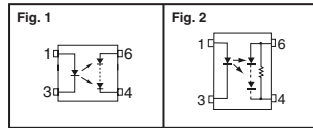
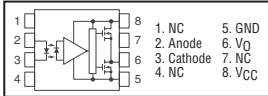


Fig.	Pkg.	Short Current		Open Voltage Typ. (V)	Switching Time @UF=20 mA, CL=1000pF		Isolation Voltage (Vrms)	Digi-Key Part No.	Price Each			Digi-Key Part No.	Tape and Reel	
		Min. (uA)	@IF (mA)		T on (ms)	T off (ms)			1	10	100		Qty.	Pricing
1	MFSOP	12	10	8.0	0.2	2.0	2,500	TLP190BF-ND	1.80	1.44	1.12	—	—	—
2	MFSOP	24	20	8.0	0.2	2.0	2,500	TLP191BF-ND	1.96	1.57	1.22	—	—	—
		24	20	8.0	0.2	2.0	2,500	TLP191BFCT-ND	1.96	1.57	1.22	TLP191BFTR-ND	3,000	1097.72/M

† Cut Tape

Industrial Optoisolators

Features: • Isolation Voltage: 3,750 VRMS • Operating Temperature: -40°C ~ 100°C



Pkg.	Input Current		Forward Voltage (Vf)	Oper. Fre- quency	Digi-Key Part No.	Price Each			Digi-Key Part No.	Tape and Reel	
	Min. (uA)	Max. (mA)				1	10	100		Qty.	Pricing
SMD	7.5	10	1.60	50kHz	TLP350TP1FCT-ND	1.73	1.38	1.04	TLP350TP1FTR-ND	1,500	896.62/M
Dip	7.5	10	1.60	50kHz	TLP350F-ND	1.73	1.38	1.04	—	—	—

Power Transistor Outputs

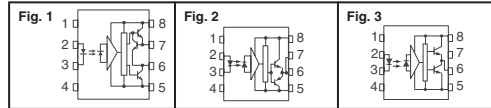
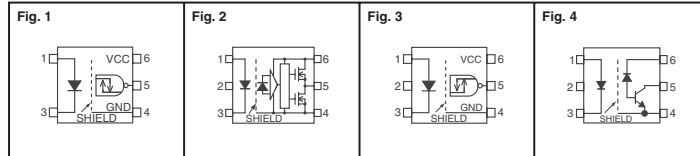


Fig.	Pkg.	Output Current		Propagation Delay Typical (µs)	Maximum Supply Voltage (V)	Isolation Voltage (VORM)	Digi-Key Part No.	Price Each			Digi-Key Part No.	Tape and Reel Pricing 1,500	
		IO (A)	@IF (mA)					1	10	100		Qty.	Pricing
1	Dip	±0.32	5.0	1	16	2,500	TLP557F-ND	1.31	1.05	.79	—	—	—
2	Dip	±0.5	5.0	0.2	35	2,500	TLP250F-ND	1.36	1.09	.82	—	—	—
	SMD	±1.5	5.0	0.15 @ 8mA	35	2,500	TLP250LF1F-ND	1.63	1.31	.99	—	—	—
3	Dip	±1.5	5.0	0.15 @ 8mA	35	2,500	TLP250TP1FCT-ND	1.45	1.17	.88	TLP250TP1FTR-ND	755.04/M	—
	SMD	±0.4	5.0	0.25 @ 8mA	35	2,500	TLP251FCT-ND	1.36	1.09	.82	TLP251FTR-ND	707.86/M	—
3	Dip	±0.4	5.0	0.25 @ 8mA	35	2,500	TLP251F-ND	1.27	1.02	.77	—	—	—

† Cut Tape

URED SMT Photocouplers

Toshiba's IRED SMT Photocouplers consist of a GaAlAs light-emitting diode and an integrated high-gain, high-speed photodetector.



TLP102, TLP106: Suitable for isolating input control signals to intelligent power modules, have a built-in Schmitt trigger and have common-mode transient immunity of 10 kV/µs. **TLP116:** Intended for digital isolation in A/D and D/A converters, high-speed line receivers, microprocessor system interfaces, and plasma display panels. **TLP701, TLP705:** Suitable for gate driving circuits for IGBTs or power MOSFETs. Capable of "direct" gate driving of low-power IGBTs. **TLP706:** Buffer logic type. For inverter logic, the TPL702 is in line-up. **TLP702:** Inverter logic type. For buffer logic, the TPL706 is in line-up. **TLP716:** 50% smaller than the 8PIN DIP and has suited the safety standard reinforced insulation class, so mounting area in safety standard required equipment can be reduced. **TLP719:** Has a Faraday shield integrated on the photodetector chip to provide an effective common mode noise transient immunity. It is also suitable for application in noisy environmental conditions.

Fig.	Description	Data Rate (NRZ) (typ.)	Current Transfer Ratio	Isolation Voltage BVs @1min. (VORM)	Package Type	Digi-Key Part No.	Cut Tape Price Each			Tape & Reel†		Toshiba Part No.
							1	10	100	Qty.	Pricing	
1	Inverter Logic Type (totem pole output)	250ns	For buffer logic type, TLP106 is in line-up	3,750	MFSOP-6	TLP102FCT-ND	1.45	1.17	.88	3,000	743.43/M	TLP102 (TRP.F)
	Buffer Logic Type (totem pole output)	250ns	For inverter logic type, TLP102 is in line-up	3,750	MFSOP-6	TLP106FCT-ND	1.45	1.17	.88	3,000	743.43/M	TLP106 (TRP.F)
	High Speed	20MBd	Inverter logic (totem pole output)	3,750	MFSOP-6	TLP116FCT-ND	2.45	1.96	1.53	3,000	1372.14/M	TLP116 (TRP.F)
2	Low Power IGBT/MOSFET Direct Drive	250ns	Peak +/-0.6A (maximum)	5,000	6-SMD	TLP701FCT-ND	1.38	1.11	.83	1,500	717.29/M	TLP701 (TP.F)
	Low Power IGBT/MOSFET Direct Drive	100ns	Peak +/-0.45A (maximum)	5,000	6-SMD	TLP705FCT-ND	1.60	1.28	.96	1,500	830.55/M	TLP705 (TP.F)
3	Buffer Logic Type (totem pole output)	250ns	IFHL=5mA (max). For inverter logic type, TLP702 is in line-up	5,000	6-SMD	TLP706FCT-ND	1.31	1.05	.79	1,500	679.54/M	TLP706 (TP.F)
	Inverter Logic Type (totem pole output)	250ns	IFHL=5mA (max). For buffer logic type, TLP706 is in line-up	5,000	6-SMD	TLP702FCT-ND	1.31	1.05	.79	1,500	679.54/M	TLP702 (TP.F)
	High Speed	20MBd	—	5,000	6-SMD	TLP716FCT-ND	1.96	1.57	1.22	1,500	1110.78/M	TLP716 (TP.F)
4	High Isolation Voltage	1Mbit/s	20% (minimum) @IF=16mA	5,000	6-SMD	TLP719FCT-ND	1.34	1.08	.81	1,500	698.42/M	TLP719 (TP.F)

† For Tape and Reel part number, change CT-ND to TR-ND. ‡ UL Recognized ◊ Non Inverting Output

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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