

TLP152

1. Applications

- Plasma Display Panels (PDPs)
- Transistor Inverters
- MOSFET Gate Drivers
- IGBT Gate Drivers

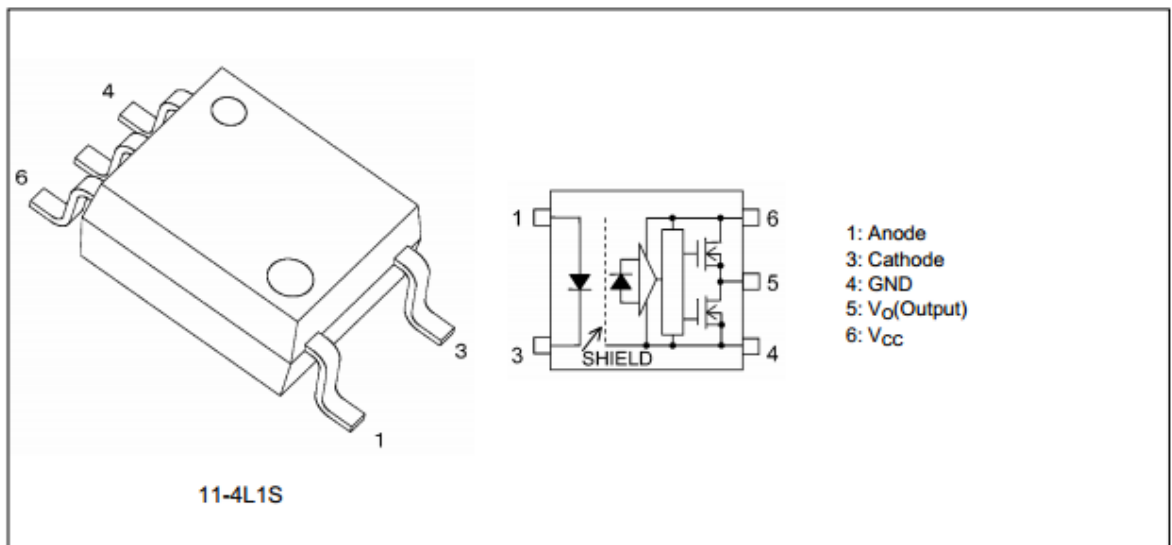
2. General

The TLP152 is a photocoupler in a SO6 package that consists of a GaAs infrared light-emitting diode(LED) optically coupled to an integrated high-gain, high-speed photodetector IC chip.

3. Features

- (1) Buffer logic type (Totem pole output)
- (2) Output peak current: ± 2.5 A (max)
- (3) Operating temperature: -40 to 100 °C
- (4) Supply current: 3 mA (max)
- (5) Supply voltage: 10 to 30 V
- (6) Threshold input current: 7.5 mA(max)
- (7) Propagation delay time: $t_{pHL} = 190$ ns (max), $t_{pLH} = 170$ ns (max)
- (8) Common-mode transient immunity: ± 20 kV/ μ s (min)
- (9) Isolation voltage: 3750 Vrms (min)

4. Packaging and Pin Assignment



	Characteristics	Symbol	Note	Rating	Unit
LED	Input forward current	I_F		20	mA
	Peak transient input forward current	I_{FPT}	(Note 1)	1	A
	Input reverse voltage	V_R		5	V
	Input power dissipation	P_D		40	mW
Detector	Peak high-level output current ($T_a = -40$ to 100°C)	I_{OPH}	(Note 2)	-2.5	A
	Peak low-level output current ($T_a = -40$ to 100°C)	I_{OPL}	(Note 2)	+2.5	
	Output voltage	V_O		35	V
	Supply voltage	V_{CC}		35	
	Output power dissipation	P_O		260	mW
Common	Operating temperature	T_{opr}		-40 to 100	$^\circ\text{C}$
	Storage temperature	T_{stg}		-55 to 125	
	Lead soldering temperature (10 s)	T_{sol}	(Note 3)	260	
	Isolation voltage AC, 1 min, R.H. $\leq 60\%$, $T_a = 25^\circ\text{C}$	BV_S	(Note 4)	3750	Vrms

- Пиковый выходной ток: ± 2.5 A (макс.)
- Диапазон рабочих температур: от 40°C до 100°C
- Потребляемый ток: 3 mA (макс.)
- Диапазон напряжения питания: от 10 до 30 В
- Максимальный входной ток: 7.5 mA
- Задержка распространения сигнала: $t_{pHL} = 190$ нс (макс.), $t_{pLH} = 170$ нс (макс.)
- Устойчивость к переходным процессам: ± 20 кВ/мкс (мин.)
- Напряжение изоляции: 3750 Vrms (мин.)