

## TLP700F

Industrial inverters

Inverter for air conditioners

IGBT / Power MOS FET gate drive

The TLP700F consists of a GaAs light-emitting diode and an integrated photodetector.

This unit is a 6-lead SDIP package. The TLP700F is 50% smaller than the 8-pin DIP and meets the reinforced insulation class requirements of international safety standards. Therefore the mounting area can be reduced in equipment requiring safety standard certification.

The TLP700F is suitable for gate driving circuits for IGBTs or power MOSFETs. In particular, the TLP700F is capable of "direct" gate driving of low-power IGBTs.

Absolute maximum ratings and electrical characteristics are the same as in the TLP700 technical data sheets.

- Peak output current:  $\pm 2.0$  A (max)
- Guaranteed performance over temperature:  $-40$  to  $100$  °C
- Supply current: 2 mA (max)
- Power supply voltage: 15 to 30 V
- Threshold input current:  $I_{FLH} = 5$  mA (max)
- Switching time ( $t_{PLH} / t_{PHL}$ ): 500 ns (max)
- Common mode transient immunity:  $\pm 10$  kV/ $\mu$ s (min)
- Isolation voltage: 5000 Vrms (min)
- Construction mechanical rating

	7.62-mm pitch standard type	10.16-mm pitch TLPXXXXF type
Creepage Distance	7.0 mm (min)	8.0 mm (min)
Clearance	7.0 mm (min)	8.0 mm (min)
Insulation Thickness	0.4 mm (min)	0.4 mm (min)

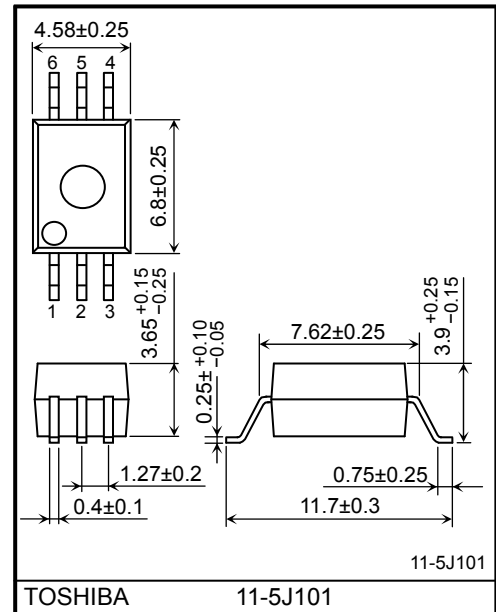
- UL Recognized: UL1577, File No. E67349
- Option (D4)  
TÜV approved: EN60747-5-2  
Certificate No. R50033433
- Maximum operating insulation voltage: 1140 Vpk
- Highest permissible over voltage: 8000 Vpk

( Note ) When a EN60747-5-2 approved type is needed,  
please designate the "Option (D4)"

### Truth Table

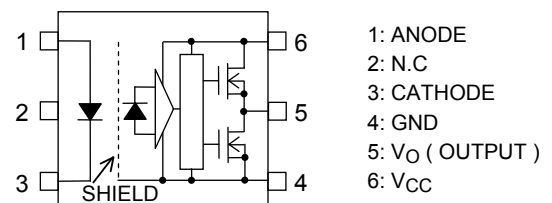
Input	LED	M1	M2	Output
H	ON	ON	OFF	H
L	OFF	OFF	ON	L

Unit in mm

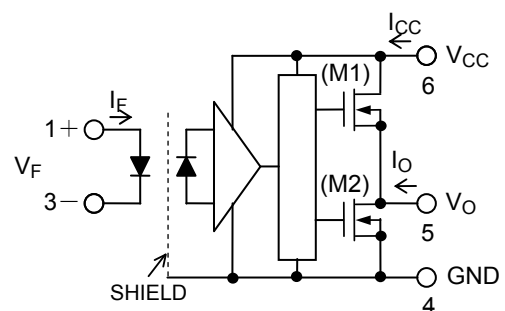


Weight: 0.26 g (typ.)

### Pin Configuration (Top View)



### Schematic



A 0.1- $\mu$ F bypass capacitor must be connected between pins 6 and 4. (See Note 6.)

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