

TOSHIBA Photocoupler GaAlAs IRED + Photo IC

## TLP351F

Inverter for Air Conditioner  
IGBT/Power MOSFET Gate Drive  
Industrial Inverter

The TOSHIBA TLP351F consists of a GaAlAs light emitting diode and a integrated photodetector.

This unit is 8-lead DIP package.

TLP351F is suitable for gate driving circuit of IGBT or power MOSFET. Especially TLP351F is capable of "direct" gate drive of lower Power IGBTs.

Absolute maximum ratings and electrical characteristics are the same as TLP351 technical datasheet.

- Peak output current:  $\pm 0.6$  A (max)
- Guaranteed performance over temperature:  $-40$  to  $100^{\circ}\text{C}$
- Supply current: 2 mA (max)
- Power supply voltage: 10 to 30 V
- Threshold input current :  $I_F = 5$  mA (max)
- Switching time ( $t_{pLH}/t_{pHL}$ ) : 700 ns (max)
- Common mode transient immunity: 10 kV/ $\mu\text{s}$
- Isolation voltage: 3750 Vrms
- Construction mechanical rating
- Option(D4)

VDE Approved : DIN EN60747-5-2

Maximum Operating Insulation Voltage : 1140V<sub>PK</sub>

Highest Permissible Over Voltage : 6000V<sub>PK</sub>

**(Note): When an EN60747-5-2 approved type is needed,  
Please designate "Option(D4)"**

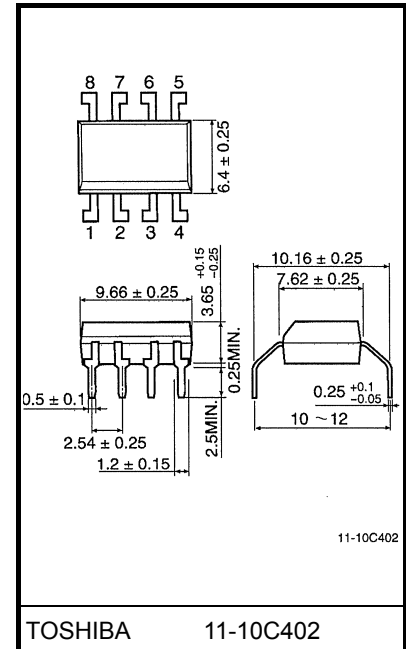
- Construction mechanical rating

	7.62mm pitch TLP351 type	10.16mm pitch TLP351F type
Creepage distance	6.4 mm (min)	8.0 mm (min)
Clearance	6.4 mm (min)	8.0 mm (min)
Insulation thickness	0.4 mm (min)	0.4 mm (min)

### Truth Table

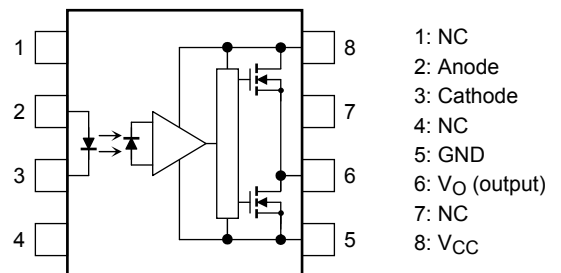
Input	LED	Tr1	Tr2	Output
H	ON	ON	OFF	H
L	OFF	OFF	ON	L

Unit: mm

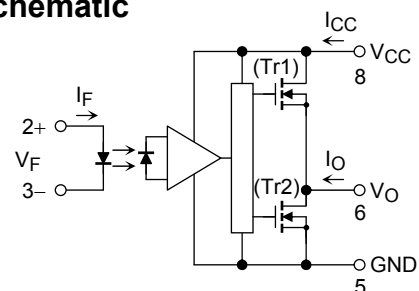


Weight: 0.54 g (typ.)

### Pin Configuration (top view)



### Schematic



A 0.1  $\mu\text{F}$  bypass capacitor must be connected between pin 8 and 5.

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20070701-EN

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