

TOSHIBA Photocoupler GaAlAs Ired & Photo-IC

# TLP251F

Inverter for Air Conditioner  
Induction Heating  
Transistor Inverter  
Power MOSFET Gate Drive  
IGBT Gate Drive

The TOSHIBA TLP251F consists of a GaAlAs light emitting diode and an integrated photodetector.  
This unit is 8-lead DIP package.  
TLP251F is suitable for gate driving circuit of IGBT or power MOS FET.  
Especially TLP251 is capable of "direct" gate drive of lower power IGBTs.  
(~15A)

- Input threshold current:  $I_F = 5\text{mA}$  (max.)
- Supply current: 11mA (max.)
- Supply voltage: 10~35V
- Output peak current:  $\pm 0.4\text{A}$  (max.)
- Switching time:  $t_{pHL}, t_{pLH} = 1\mu\text{s}$  (max.)
- Isolation voltage:  $2500V_{rms}(\text{min.})$
- UL recognized: UL1577, file no. E67349
- Option (D4) type

VDE approved: DIN EN 60747-5-2, certificate no. 40011913

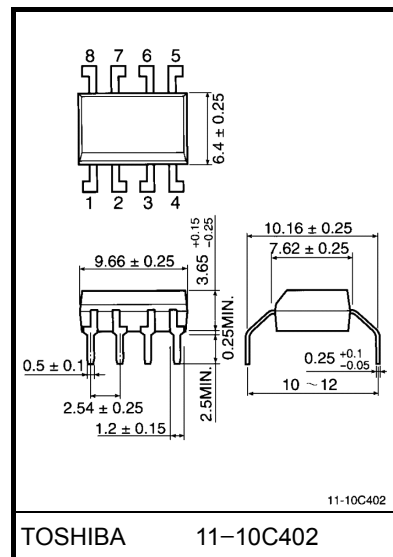
Maximum operating insulation voltage: 1140V<sub>PK</sub>

Highest permissible over voltage: 6000V<sub>PK</sub>

**(Note 1) When a EN 60747-5-2 approved type is needed,  
please designate the " Option (D4) "**

- Structural parameter  
Creepage distance: 8.0mm (min.)  
Clearance: 8.0mm (min.)

Unit in mm



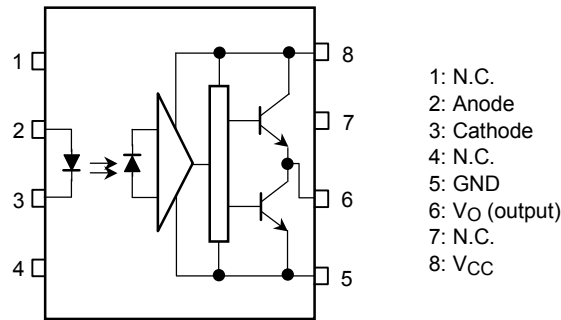
TOSHIBA 11-10C402

Weight: 0.54g

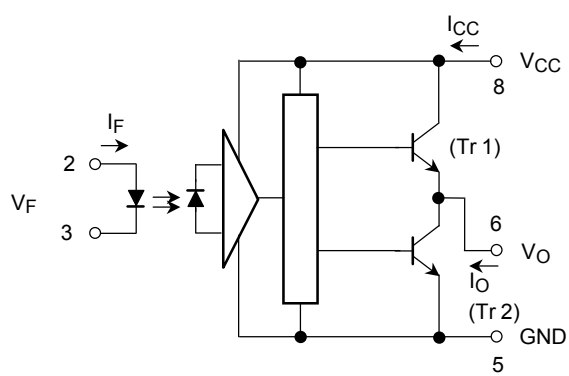
Truth Table

		Tr1	Tr2
Input LED	On	On	Off
	Off	Off	On

Pin Configuration (top view)



Schematic



(Note 2 ) A 0.1 $\mu$ F bypass capacitor must be connected between pin 8 and 5.

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20070701-EN

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