TOSHIBA Photocoupler GaAℓAs IRed & Photo-IC

# TLP250F(INV)

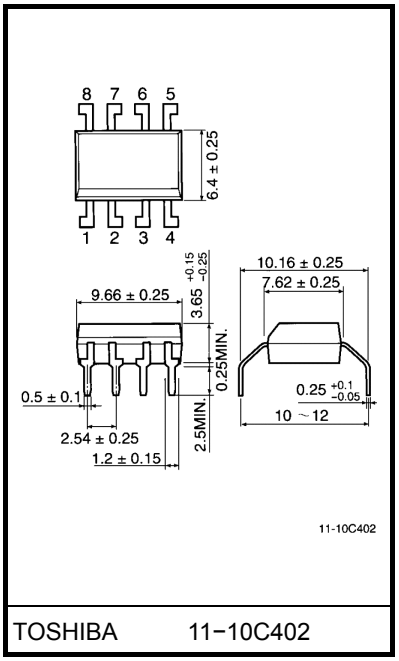
Transistor Inverters

Inverter for Air Conditioners

IGBT Gate Drivers

Power MOSFET Gate Drivers

Unit: mm




TOSHIBA 11−10C402

Weight: 0.54 g

The TOSHIBA TLP250F(INV) consists of a GaAℓAs light emitting diode optically coupled to an integrated photodetector and is housed in an 8-pin DIP package.
The TLP250F(INV) is suitable for gate driving circuitry of IGBTs or power MOSFETs.
Absolute maximum ratings and electrical characteristics are the same as those of the TLP250(INV) and listed in its datasheet.

- Input threshold current: $I_F$ = 5 mA (max)
- Supply current : 11 mA (max)
- Supply voltage : 10 V to 35 V
- Output current : ±1.5 A (max)
- Switching time : $t_{pHL}$, $t_{pLH}$ = 0.5 μs (max)
- Isolation voltage : 2500 $V_{rms}$ (min)
- UL recognized : UL1577, file no. E67349
- Option (D4) type
  VDE approved: DIN EN 60747-5-2, certificate No. 40011913
  Maximum operating insulation voltage: 1140 $V_{PK}$
  Maximum permissible overvoltage: 6000 $V_{PK}$

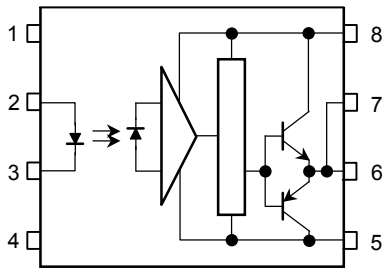
**(Note 1) When an EN 60747-5-2 approved type is needed, please designate the " Option (D4) ".**

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

## Truth Table

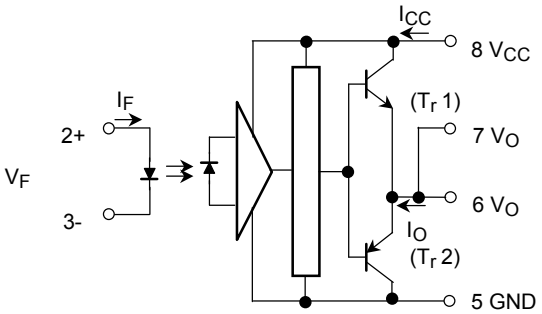
| | | Tr1 | Tr2 |
|---|---|---|---|
| Input LED | On | On | Off |
| | Off | Off | On |

## Pin Configuration (top view)




1 : N.C.
2 : ANODE
3 : CATHODE
4 : N.C.
5 : GND
6 : $V_O$ (OUTPUT)
7 : $V_O$
8 : $V_{CC}$

## Schematic




(Note 2) A 0.1 μF bypass capcitor must be connected between pin 8 and 5.

## RESTRICTIONS ON PRODUCT USE

20070701-EN GENERAL

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- The products described in this document shall not be used or embedded to any downstream products of which manufacture, use and/or sale are prohibited under any applicable laws and regulations.
- GaAs(Gallium Arsenide) is used in this product. The dust or vapor is harmful to the human body. Do not break, cut, crush or dissolve chemically.
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