

TENTATIVE

TOSHIBA PHOTOCOUPLER GaAlAs IRED & PHOTO-IC

# TLP250F

TRANSISTOR INVERTER

INVERTER FOR AIR CONDITIONOR

IGBT GATE DRIVE

POWER MOS FET GATE DRIVE

The Toshiba TLP250F consists of a GaAlAs light emitting diode and a integrated photodetector.

This unit is 8-lead DIP.

TLP250F is suitable for gate driving circuit of IGBT or power MOS FET.

- Input Threshold Current :  $I_F = 5\text{mA}$  (Max.)
- Supply Current : 11mA (Max.)
- Supply Voltage : 10~35V
- Output Current :  $\pm 1.5\text{A}$  (Max.)
- Switching Time :  $t_{pHL}, t_{pLH} = 0.5\mu\text{s}$  (Max.)
- Isolation Voltage :  $2500V_{\text{rms}}$  (Min.)
- UL Recognized : UL1577, File No.E67349
- Option (D4) type

VDE Approved : DIN VDE0884 / 06.92、認定No.76823

Maximum Operating Insulation Voltage :  $1140V_{\text{PK}}$

Highest Permissible Over Voltage :  $6000V_{\text{PK}}$

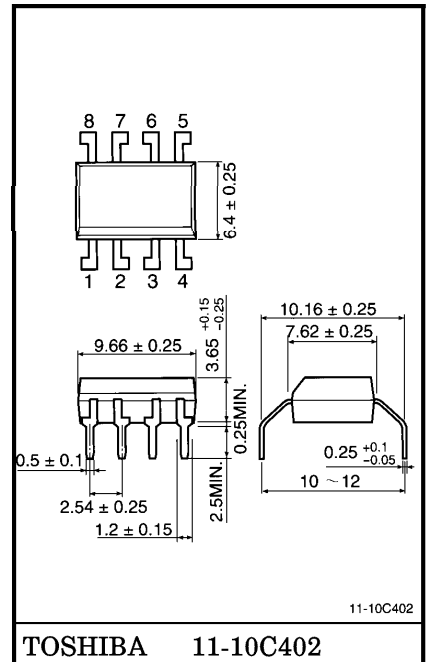
(Note 1) When a VDE0884 approved type is needed, please designate the "Option (D4)"

- Structural Parameter
  - Creepage Distance : 8.0mm (Min.)
  - Clearance : 8.0mm (Min.)

TRUTH TABLE

		Tr1	Tr2
		ON	OFF
Input LED	ON	ON	OFF
	OFF	OFF	ON

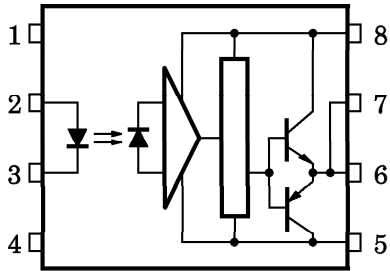
Unit in mm



TOSHIBA 11-10C402

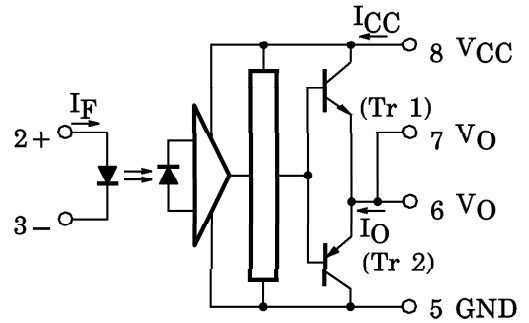
Weight : 0.54g

**PIN CONFIGURATION (TOP VIEW)**



- 1 : N.C.
- 2 : ANODE
- 3 : CATHODE
- 4 : N.C.
- 5 : GND
- 6 :  $V_O$  (OUTPUT)  $V_F$
- 7 :  $V_O$
- 8 : VCC

**SCHMATIC**



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

**RESTRICTIONS ON PRODUCT USE**

000707EBC

- TOSHIBA is continually working to improve the quality and reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to comply with the standards of safety in making a safe design for the entire system, and to avoid situations in which a malfunction or failure of such TOSHIBA products could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent TOSHIBA products specifications. Also, please keep in mind the precautions and conditions set forth in the "Handling Guide for Semiconductor Devices," or "TOSHIBA Semiconductor Reliability Handbook" etc..
- The TOSHIBA products listed in this document are intended for usage in general electronics applications (computer, personal equipment, office equipment, measuring equipment, industrial robotics, domestic appliances, etc.). These TOSHIBA products are neither intended nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury ("Unintended Usage"). Unintended Usage include atomic energy control instruments, airplane or spaceship instruments, transportation instruments, traffic signal instruments, combustion control instruments, medical instruments, all types of safety devices, etc.. Unintended Usage of TOSHIBA products listed in this document shall be made at the customer's own risk.
- Gallium arsenide (GaAs) is a substance used in the products described in this document. GaAs dust and fumes are toxic. Do not break, cut or pulverize the product, or use chemicals to dissolve them. When disposing of the products, follow the appropriate regulations. Do not dispose of the products with other industrial waste or with domestic garbage.
- The products described in this document are subject to the foreign exchange and foreign trade laws.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.