

TENTATIVE

TOSHIBA PHOTOCOUPLER GaAlAs IRED + PHOTO IC

TLP759F(IGM)

TRANSISTOR INVERTOR

INVERTER FOR AIR CONDITIONER

LINE RECEIVER

IPM INTERFACES

The TOSHIBA TLP759F(IGM) consists of a GaAlAs high-output light emitting diode and a high speed detector of one chip photo diode-transistor.

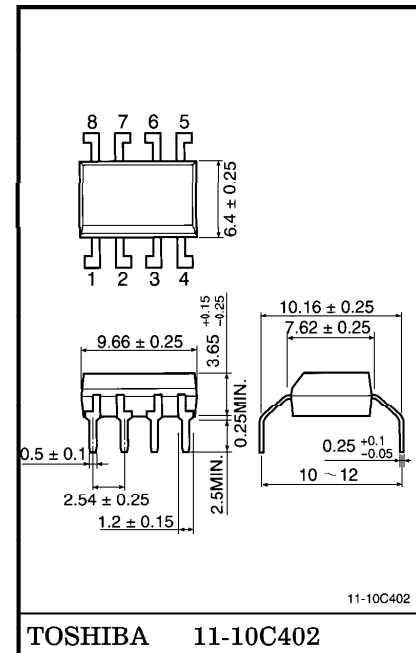
This unit is 8-lead DIP package.

TLP759F(IGM) has no internal base connection, and a Faraday shield integrated on the photodetector chip provides an effective common mode noise transient immunity.

TLP759F(IGM) guarantees minimum and maximum of propagation delay time, switching time dispersion, and high common mode transient immunity. Therefor TLP759F(IGM) is suitable for isolation interface between IPM (Intelligent Power Module) and control IC circuits in motor control application.

All parameters are tested to the specification of TLP759(IGM).

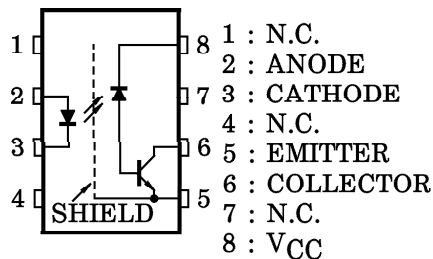
Unit in mm



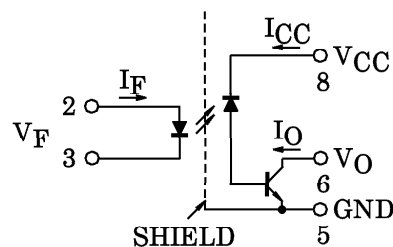
TOSHIBA 11-10C402

Weight : 0.54g

PIN CONFIGURATION (Top view)



SCHEMATIC



961001EBC1

- TOSHIBA is continually working to improve the quality and the 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 observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product 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 products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- 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 foreign exchange and foreign trade control 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.

- Isolation Voltage : 5000V_{rms} (Min.)
 - Common Mode Transient Immunity : $\pm 10\text{kV} / \mu\text{s}$ (Min.)
@V_{CM}=1500V
 - Switching Time : t_{pHL}, t_{pLH} = 0.1 μs (Min.)
= 0.8 μs (Max.)
@I_F=10mA, V_{CC}=15V, R_L=20k Ω , T_a=25°C
 - Switching Time Dispersion : |t_{pLH}-t_{pHL}|=0.7 μs (Max.)
 - UL Recognized : UL1577, Fle No. E67349
 - Option (D4) type VDE Approved : DIN VDE0884 / 06.92,
Certificate No. 83676
- Maximum Operating Insulation : 1140V_{PK}
Highest Permissible Over Voltage : 6000V_{PK}
- (Note 1) When a VDE0884 approved type is needed,
please designate the "Option (D4)"
- Creepage Distance : 8.0mm
 - Clearance : 8.0mm
 - Insulation Thickness : 0.4mm