TOSHIBA Photocoupler GaAℓAs IRED + Photo IC

TLP350F

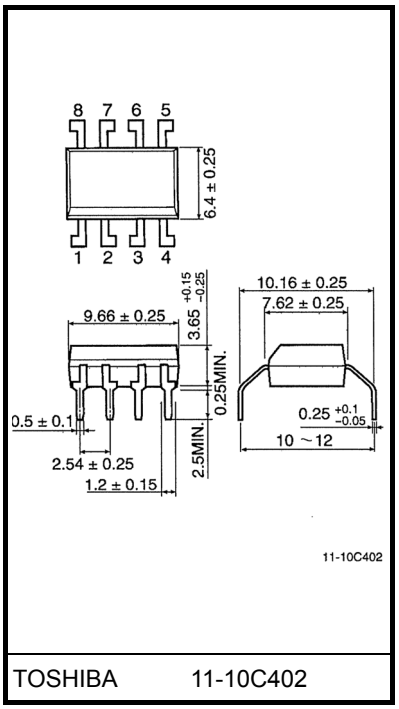
Industrial Inverter

Inverter for Air Conditioner

IGBT/Power MOSFET Gate Drive

IH(Induction Heating)

Unit: mm



TOSHIBA 11-10C402

Weight: 0.54 g (typ.)

The TOSHIBA TLP350F consists of a GaAℓAs light-emitting diode and an integrated photodetector.
This unit is an 8-lead DIP package.
The TLP350F is suitable for gate driving IGBTs or power MOSFETs.
Absolute maximum ratings and electrical characteristics are the same as TLP350technical datasheet.

- Peak output current: I_O = ±2.5A (max)
- Guaranteed performance over temperature: −40 to 100°C
- Supply current:I_{CC} = 2 mA (max)
- Power supply voltage: V_{CC} = 15 to 30 V
- Threshold input current : I_{FLH} = 5 mA (max)
- Switching time (t_{pLH}/t_{pHL}) : 500 ns (max)
- Common mode transient immunity: 15 kV/μs
- Isolation voltage: 3750 Vrms
- UL Recognized : UL1577,File No.E67349
- Option(D4)

  VDE Approved : DIN EN 60747-5-2

  Maximum Operating Insulation Voltage : 1140V_{PK}

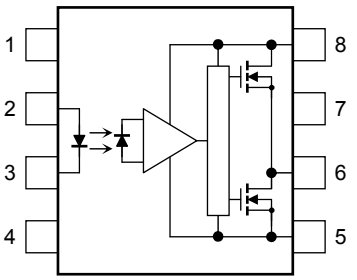
  Highest Permissible Over Voltage : 6000V_{PK}

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

- Construction mechanical rating

	7.62mm pitch TLP350 type	10.16mm pitch TLP350F 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)

Pin Configuration (top view)

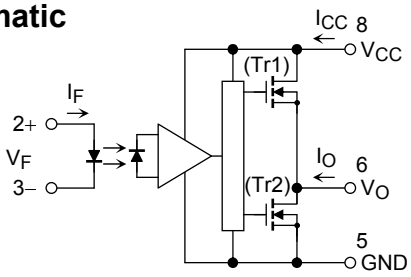


1: NC
2: Anode
3: Cathode
4: NC
5: GND
6: V_O (output)
7: NC
8: V_{CC}

Truth Table

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

Schematic



A 0.1 μF bypass capacitor must be connected between pins 8 and 5. (See Note 6)

RESTRICTIONS ON PRODUCT USE

20070701-EN

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- 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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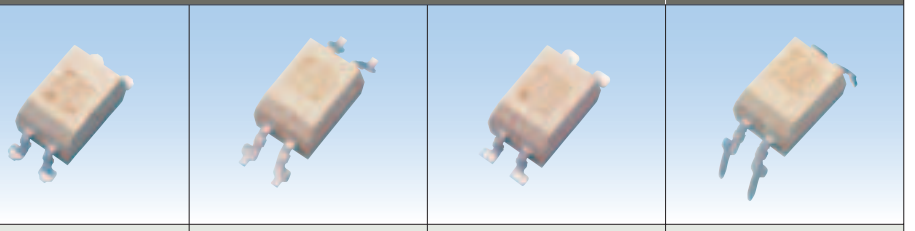
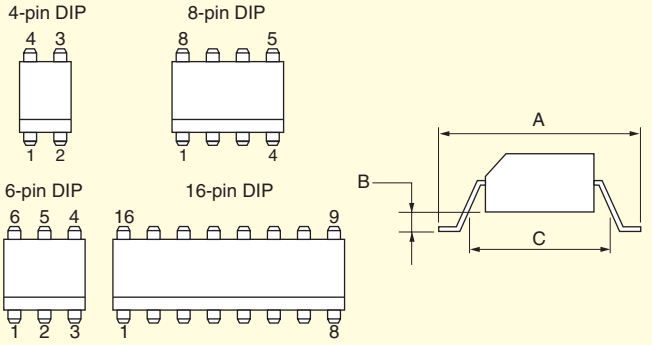
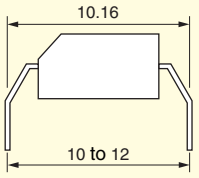
7 Package Information

1 Lead Form Options for DIP Packages

The **DIP4, DIP8, DIP8** and **DIP16** packages offer three surface-mount lead form options and a wide-spaced lead form option. The electrical characteristics are identical, regardless of these options.

Lead Form	Surface-Mount			Wide-Spaced
Appearance				
Lead Form Code	(LF1)	(LF4)	(LF5)	(LF2)
Carrier Tape Code	(TP1)	(TP4)	(TP5)	Not available*
Package Outlines				

Dimensions Unit: mm

Dimension \ Version	(LF1)		(LF4)		(LF5)	
	Min	Max	Min	Max	Min	Max
A	–	10.0	–	12.0	–	10.0
B	(0.35 typ.)		(0.25 typ.)		–	0.2
C	6.4	–	8.0	–	6.4	–

All other package dimensions are the same as for each standard package specification.

* Tape-and-reel packing is not available with (LF2).

Example 1: Standard part: TLP621(F)

Surface-mount option: TLP621(LF1,F): Packed in stick magazines (see page 50).

Surface-mount and tape-and-reel options: TLP621(TP1,F): Packed in tape-and-reel (see page 52).

■ Standard part names should be used when applying for safety standard approval.

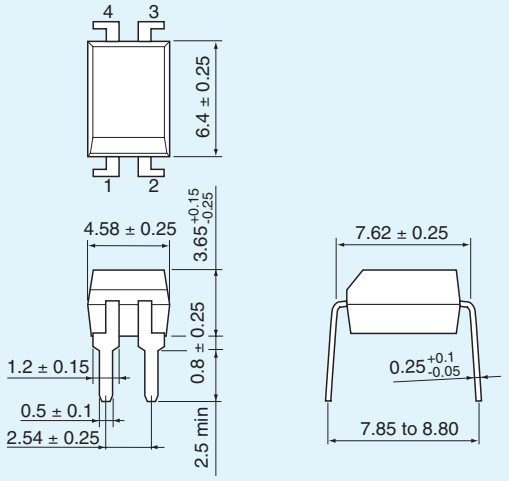
■ The package dimensions and lead form options of the TLP781 differ from those shown above.
See the TLP781 datasheet.

7 Package Information

2 Package Dimensions (4-Pin DIP)

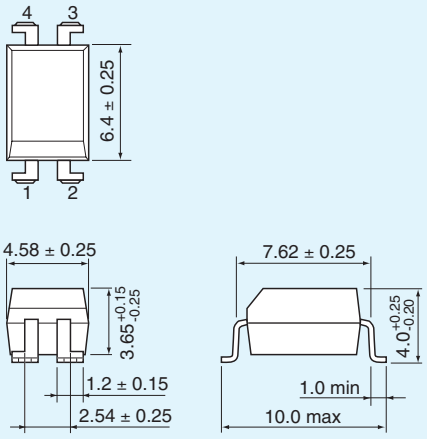
Standard DIP4

Unit: mm



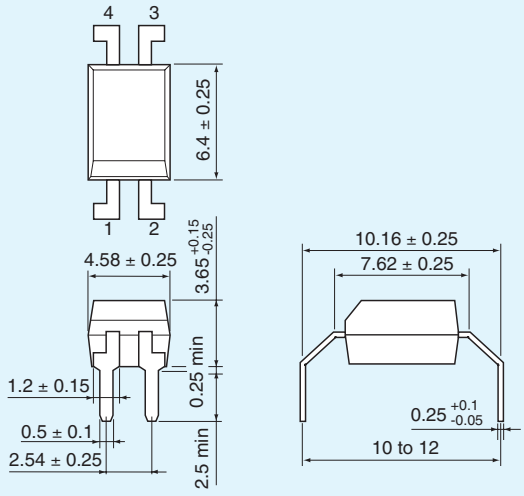
DIP4 (LF1) / (TP1)

Unit: mm



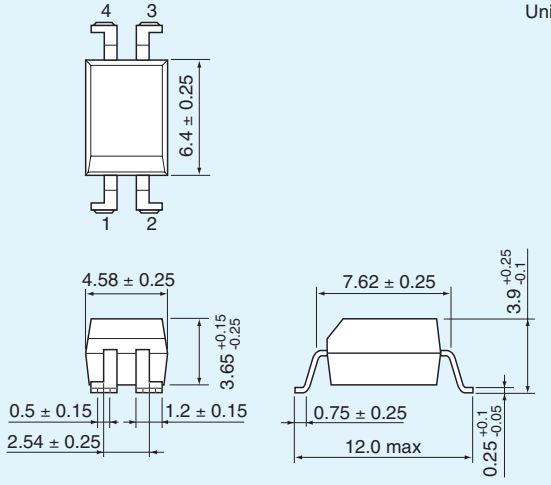
DIP4 (LF2)

Unit: mm



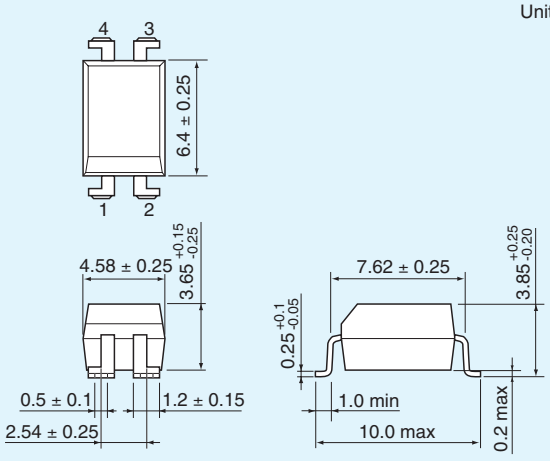
DIP4 (LF4) / (TP4)

Unit: mm



DIP4 (LF5) / (TP5)

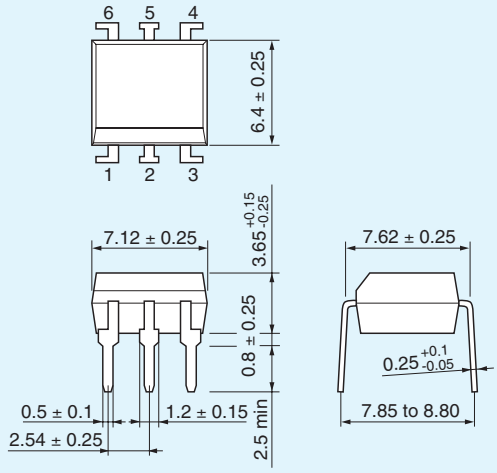
Unit: mm



2 Package Dimensions (6-Pin DIP)

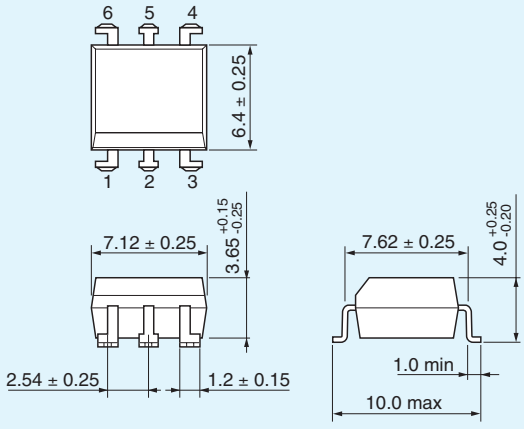
Standard DIP6

Unit: mm



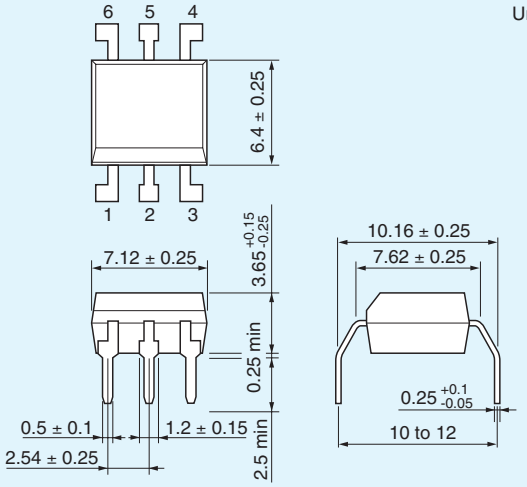
DIP6 (LF1) / (TP1)

Unit: mm



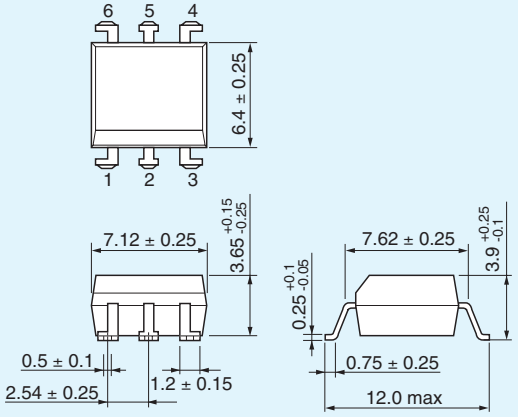
DIP6 (LF2)

Unit: mm



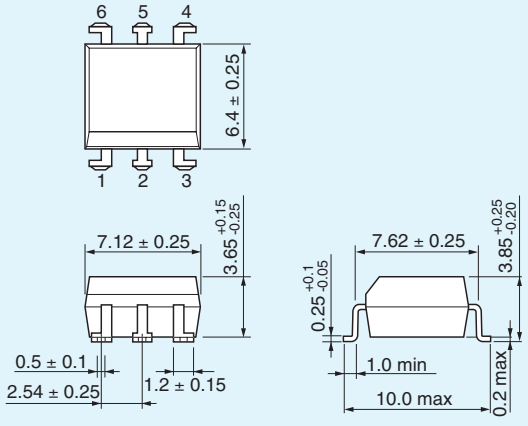
DIP6 (LF4) / (TP4)

Unit: mm



DIP6 (LF5) / (TP5)

Unit: mm

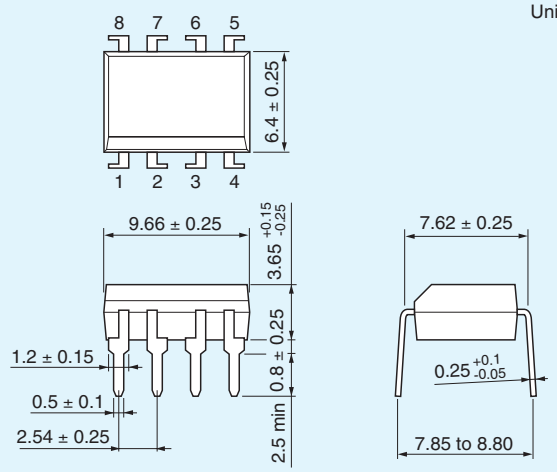


7 Package Information

2 Package Dimensions (8-Pin DIP)

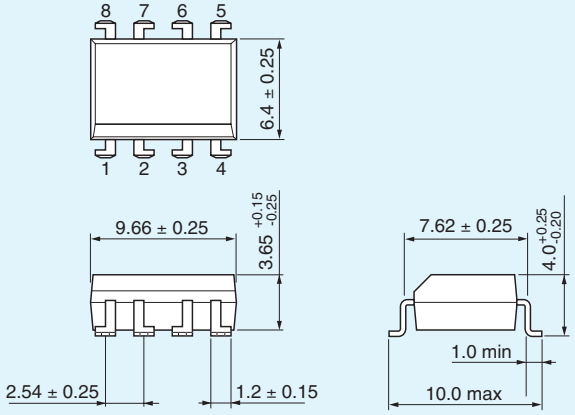
Standard DIP8

Unit: mm



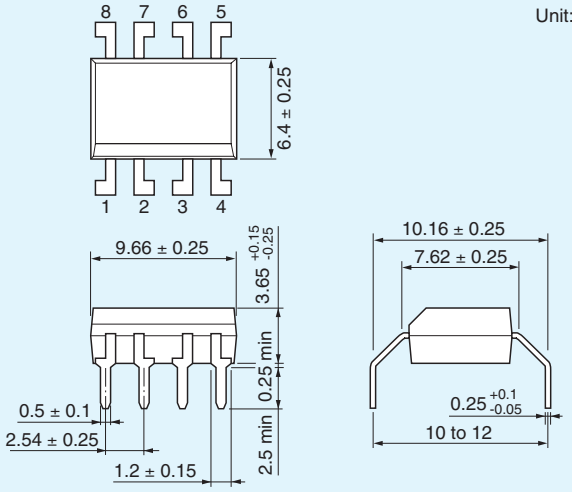
DIP8 (LF1) / (TP1)

Unit: mm



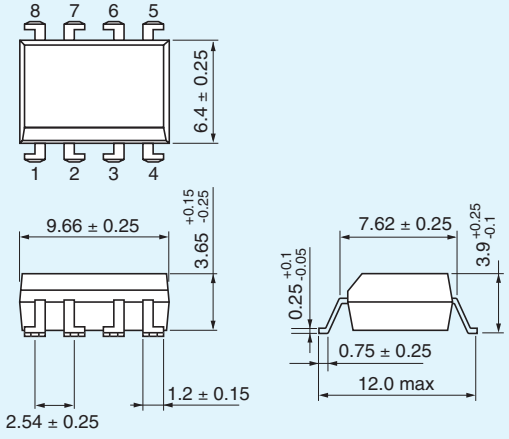
DIP8 (LF2)

Unit: mm



DIP8 (LF4) / (TP4)

Unit: mm



DIP8 (LF5) / (TP5)

Unit: mm