

TLP715F

Isolated Bus Drivers

High Speed Line Receivers

Microprocessor System Interfaces

The Toshiba TLP715F consists of a GaAlAs light-emitting diode and an integrated high-gain, high-speed photodetector. This unit is a 6-pin SDIP. The TLP715F is 50% smaller than the 8-PIN DIP and meets the reinforced insulation class requirements of international safety standards. Therefore the mounting area can be reduced in equipment requiring safety standard certification.

The detector has a totem pole output stage to provide both source and sink driving. The detector IC has an internal shield that provides a guaranteed common-mode transient immunity of 10 kV/μs.

The TLP715F is buffer logic type. For inverter logic type, the TLP718F is in line-up.

Absolute maximum ratings and electrical characteristics are the same as in the TLP715 technical data sheets.

- Buffer logic output (totem pole output)
- Guaranteed performance over temperature : -40 to 100°C
- Power supply voltage : 4.5 to 20 V
- Input current: $I_{FLH} = 3\text{mA}$ (Max.)
- Switching time (t_{pLH} / t_{pHL}) : 250 ns (Max.)
- Common-mode transient immunity : $\pm 10\text{ kV}/\mu\text{s}$ (Min)
- Isolation voltage : 5000 Vrms (Min)
- UL recognized
UL1577, File No.E67349
- c-UL recognized
CSA Component Acceptance Service No. 5A, File No.E67349
- Option (D4)
TÜV recognized / VDE under application : DIN EN60747-5-5
Maximum Operating Insulation Voltage : 1140V_{pk}
Highest Permissible Over Voltage : 8000V_{pk}
**(Note) : When a EN60747-5-5 approved type is needed,
Please designate "Option(D4)"**

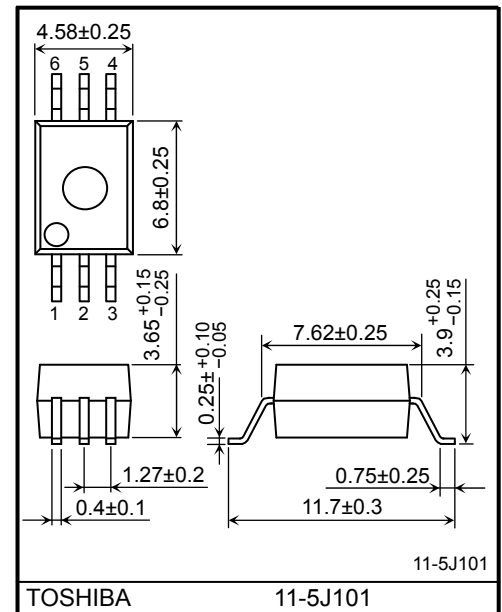
- Construction Mechanical Rating

| | 7.62 mm pitch standard type | 10.16 mm pitch TLPXXXF type |
|----------------------|--------------------------------|--------------------------------|
| Creepage Distance | 7.0 mm (Min) | 8.0 mm (Min) |
| Clearance | 7.0 mm (Min) | 8.0 mm (Min) |
| Insulation Thickness | 0.4 mm (Min) | 0.4 mm (Min) |

Truth Table

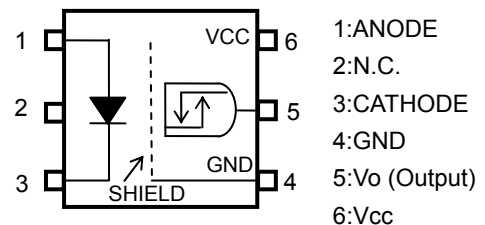
| Input | LED | Tr1 | Tr2 | Output |
|-------|-----|-----|-----|--------|
| H | ON | ON | OFF | H |
| L | OFF | OFF | ON | L |

Unit in mm

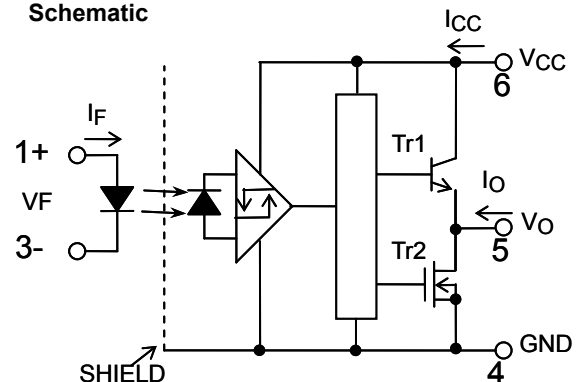


Weight:0.26 g(typ.)

Pin Configuration (Top View)



Schematic



0.1 μF bypass capacitor must be connected between pins 6 and 4.

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