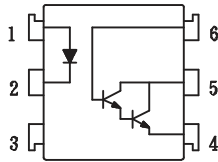


Schematic:



For dimensions and pin-outs, see the last page of this document.

Features:

1. High current transfer ratio
 (CTR:MIN.500% at IF=10mA, Vce=5V)
2. High isolation voltage between input and output
 (Viso:5300Vrms).

Ordering:

Suffix to Standard Part Number

- V = VDE Compliant
- G = 10mm Lead Spread
- S = Surface Mount Lead-form
- T = Tape & Reel

Superior OPTO Part Number:

OPTO621

Absolute Maximum Ratings

(Ta=25°C)

| Parameter | Symbol | Rating | Unit |
|---------------------------------|-----------------------------|-------------|--------|
| Input | Forward current | IF | 50 mA |
| | Peak forward current | IFM | 1 A |
| | Reverse voltage | VR | 6 V |
| | Power dissipation | PD | 70 mW |
| Output | Collector-emitter voltage | VCEO | 30 V |
| | Collector-base voltage | VCBO | 30 V |
| | Emitter-base voltage | VEBO | 6 V |
| | Collector current | IC | 150 mA |
| | Collector power dissipation | PC | 200 mW |
| Total power dissipation | Ptot | 200 mW | |
| Isolation voltage 1 minute | Viso | 5300 | Vrms |
| Operating temperature | Topr | -30 to +100 | °C |
| Storage temperature | Tstg | -55 to +125 | °C |
| Soldering temperature 10 second | Tsol | 260 | °C |

Electrical Characteristics

(Ta=25°)

| Parameter | Symbol | Conditions | MIN. | TYP. | MAX. | Unit |
|--------------------------|--------------------------------------|-----------------------------|--------------------|------|------|------|
| Input | Forward voltage | IF=10mA | — | 1.2 | 1.4 | V |
| | Peak forward voltage | IFM=0.5A | — | — | 3.5 | V |
| | Reverse current | VR=4V | — | — | 10 | uA |
| | Terminal capacitance | V=0, f=1kHz | — | 30 | — | pF |
| Output | Collector dark current | VCE=10V, IF=0 | — | — | 0.1 | uA |
| Transfer characteristics | Current transfer ratio | IF=10mA, VCE=5V | 100 | — | — | % |
| | Collector-emitter saturation voltage | IF=50mA, IC=50mA | — | — | 1.0 | V |
| | Isolation resistance | DC500V | 5X10 ¹⁰ | — | — | ohm |
| | Floating capacitance | V=0, f=1MHz | — | 0.6 | 1.0 | pF |
| | Cut-off frequency | VCC=5V, IC=2mA, RL=100ohm | — | 7 | — | kHz |
| | Response time (Rise) | VCE=10V, IC=50mA, RL=100ohm | — | 5 | 40 | us |
| Response time (Fall) | — | | 60 | 100 | us | |

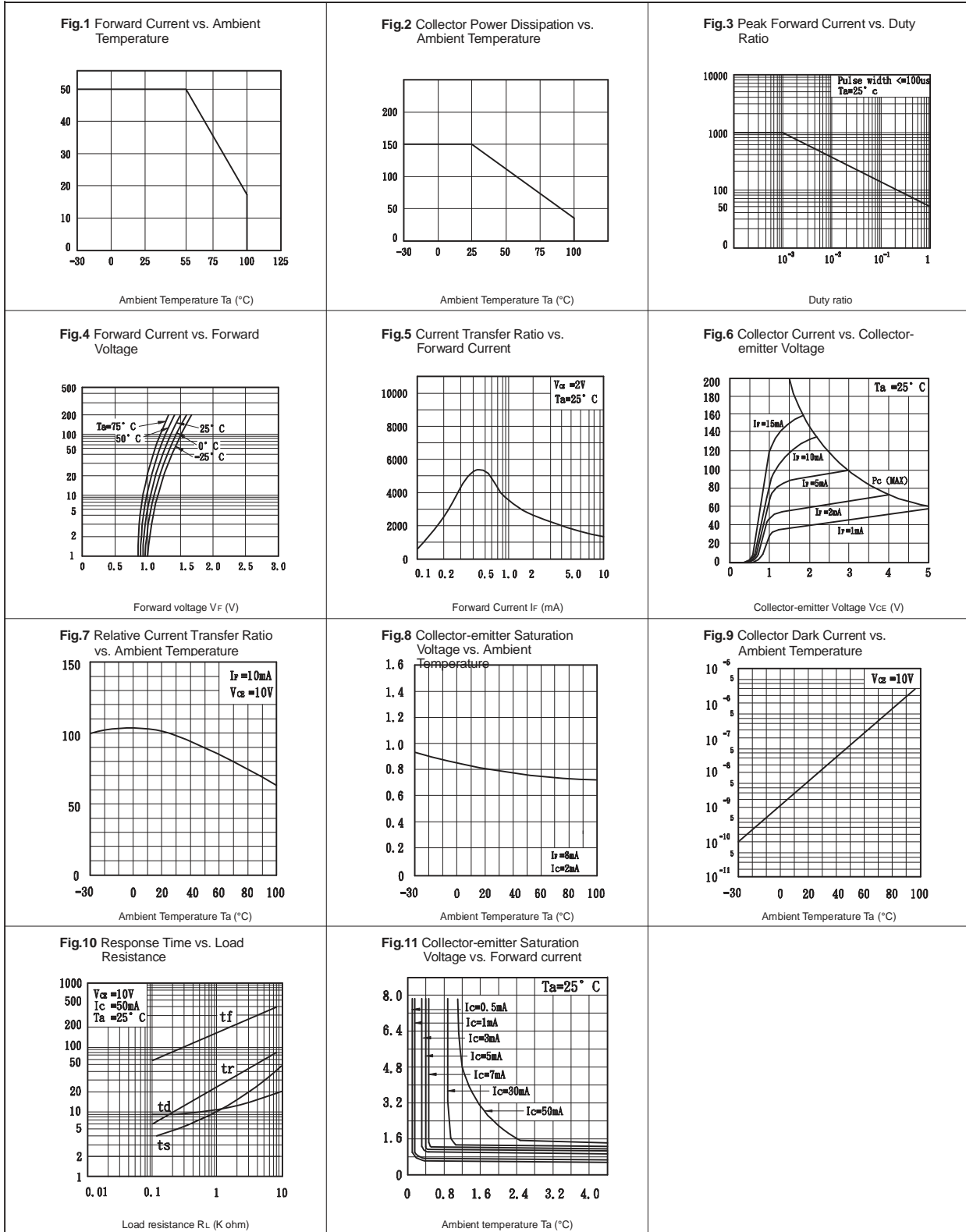


Fig.4 : 6-pin DIP type

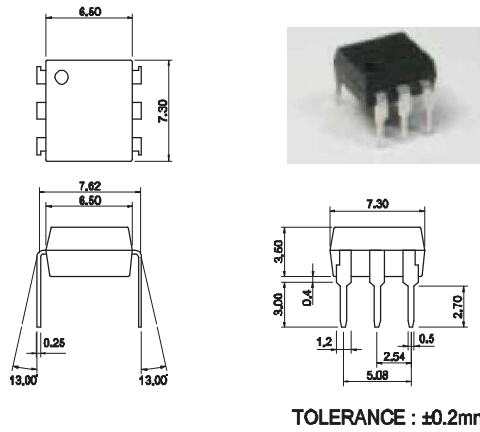


Fig.5 : 6-pin SMD type

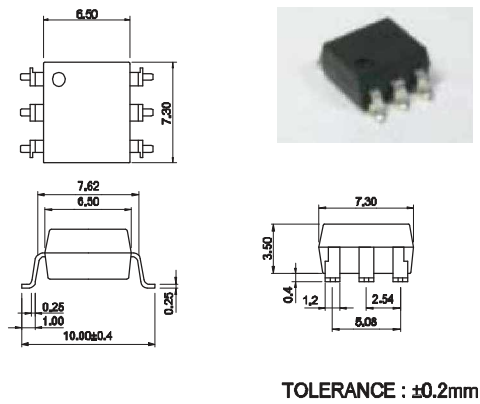


Fig.6 : 6-pin G type

