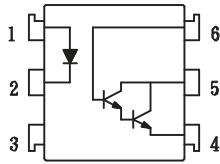


Schematic:



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

Features:

1. High current transfer ratio
(CTR:MIN.100% at $I_F=10\text{mA}$, $V_{CE}=10\text{V}$)
2. High isolation voltage between input and output
($V_{iso}:5300\text{Vrms}$).
3. Compact dual-in-line package.

Ordering:

Suffix to Standard Part Number

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

OPTO621

Superior OPTO Part Number:

Absolute Maximum Ratings:

(Ta=25°C)

| Parameter | Symbol | Rating | Unit | |
|---------------------------------|-----------------------------|-------------|------|----|
| Input | Forward current | I_F | 80 | mA |
| | Peak forward current | I_{FM} | 1 | A |
| | Reverse voltage | V_R | 6 | V |
| | Power dissipation | P_D | 70 | mW |
| Output | Collector-emitter voltage | V_{CEO} | 30 | V |
| | Collector-base voltage | V_{CBO} | 30 | V |
| | Emitter-base voltage | V_{EBO} | 6 | V |
| | Collector current | I_C | 150 | mA |
| | Collector power dissipation | P_C | 200 | mW |
| | Total power dissipation | P_{tot} | 200 | mW |
| Isolation voltage 1 minute | V_{iso} | 5300 | Vrms | |
| Operating temperature | T_{opr} | -55 to +100 | °C | |
| Storage temperature | T_{stg} | -55 to +125 | °C | |
| Soldering temperature 10 second | T_{sol} | 260 | °C | |

Electrical Characteristics:

(Ta=25°C)

| Parameter | Symbol | Conditions | MIN. | TYP. | MAX. | Unit | |
|--------------------------|--------------------------------------|---------------|---|--------------------|------|------|-----|
| Input | Forward voltage | V_F | $I_F=10\text{mA}$ | — | 1.2 | 1.4 | V |
| | Peak forward voltage | V_{FM} | $I_{FM}=0.5\text{A}$ | — | — | 3.5 | V |
| | Reverse current | I_R | $V_R=4\text{V}$ | — | — | 10 | uA |
| | Terminal capacitance | C_t | $V=0, f=1\text{kHz}$ | — | 30 | — | pF |
| Output | Collector dark current | I_{CEO} | $V_{CE}=10\text{V}, I_F=0$ | — | — | 0.1 | uA |
| Transfer characteristics | Current transfer ratio | CTR | $I_F=10\text{mA}, V_{CE}=10\text{V}$ | 100 | — | — | % |
| | Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_F=8\text{mA}, I_C=2\text{mA}$ | — | — | 1.0 | V |
| | Isolation resistance | R_{iso} | DC500V | 5×10^{10} | — | — | ohm |
| | Floating capacitance | C_f | $V=0, f=1\text{MHz}$ | — | 0.6 | 1.0 | pF |
| | Cut-off frequency | f_c | $V_{CC}=5\text{V}, I_C=2\text{mA}, R_L=100\text{ohm}$ | — | 7 | — | kHz |
| | Response time (Rise) | t_r | $V_{CE}=10\text{V}, I_C=50\text{mA}, R_L=100\text{ohm}$ | — | 5 | 40 | us |
| | Response time (Fall) | t_f | | — | 60 | 100 | us |

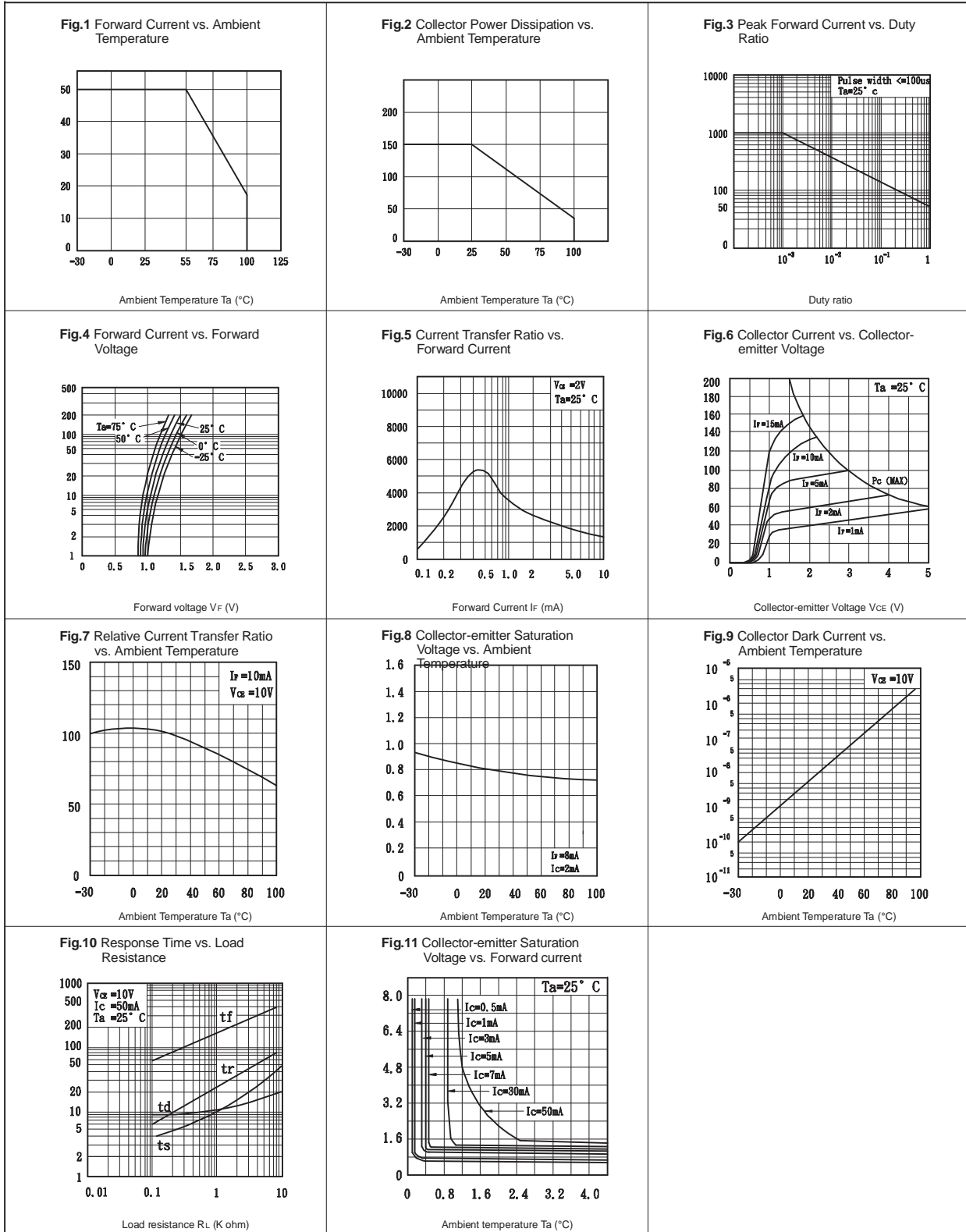


Fig.4 : 6-pin DIP type

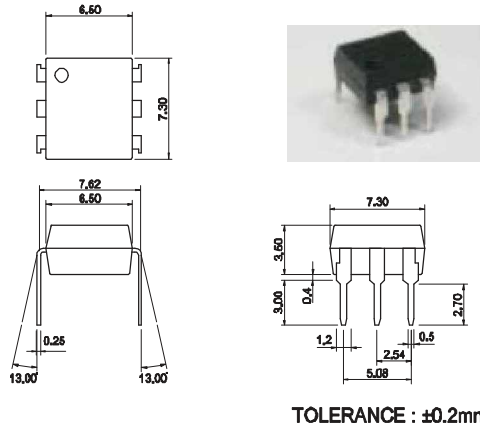


Fig.5 : 6-pin SMD type

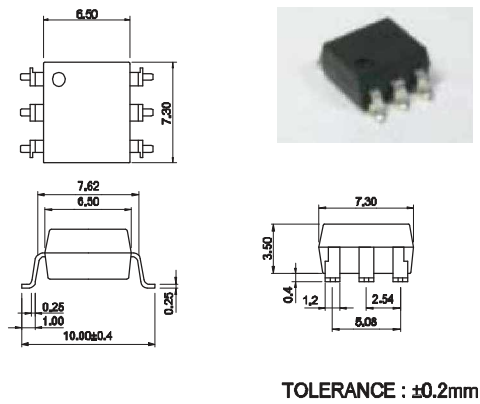


Fig.6 : 6-pin G type

