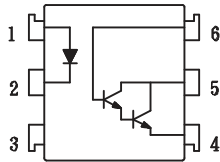


### Schematic:



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

### Features:

1. Current transfer ratio  
(CTR:MIN.50% 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	$I_F=10\text{mA}$ , $V_{CE}=10\text{V}$	50	—	—	%
	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	$5 \times 10^{10}$	—	—	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

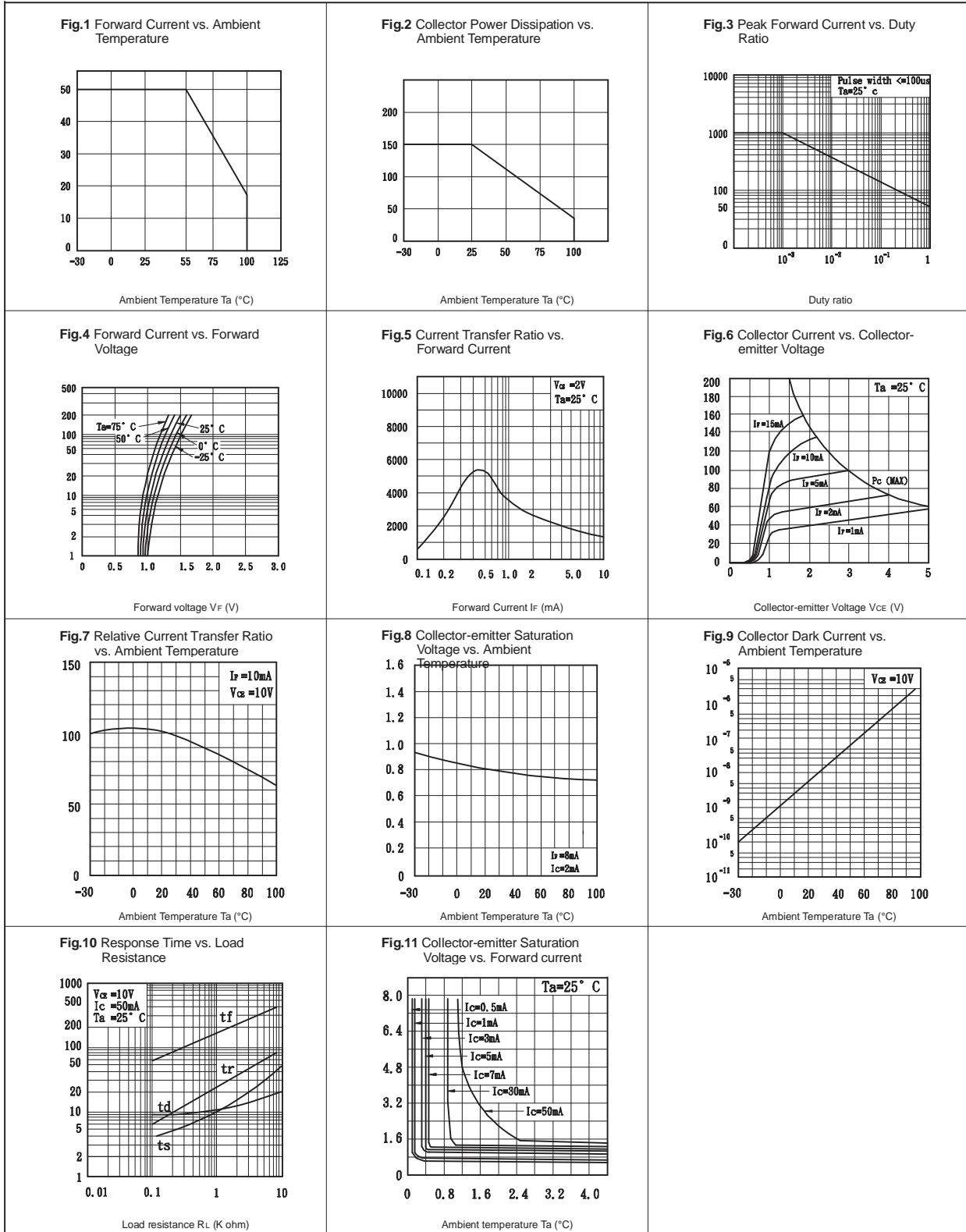


Fig.4 : 6-pin DIP type

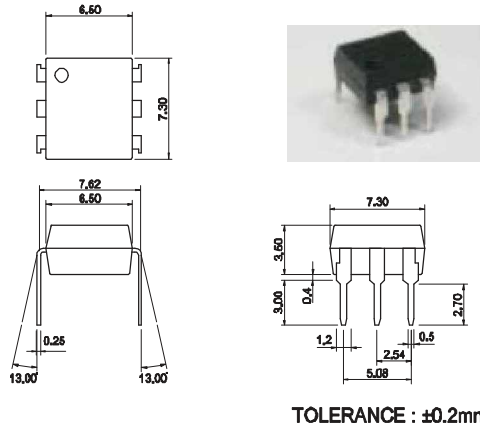


Fig.5 : 6-pin SMD type

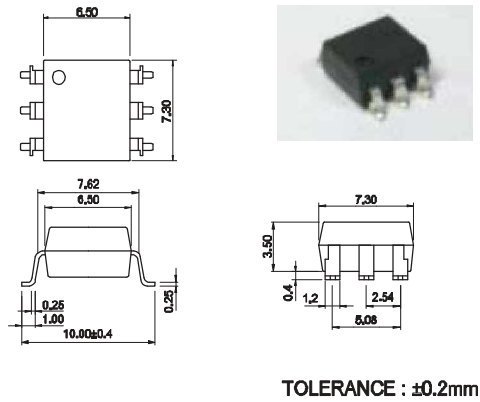


Fig.6 : 6-pin G type

