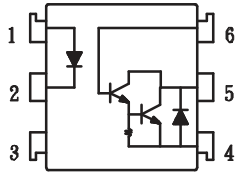


Schematic:



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

Features:

1. High Breakdown Voltage (VCEO: 300V MIN)
2. High Current Transfer Ratio (CTR:MIN.600% at IF=1mA, Vce=2V)
3. High isolation voltage between input and output (Viso:5300Vrms).
4. Compact dual-in-line package.

Ordering:

Suffix to Standard Part Number

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

Equivalents:

This part equals/ exceeds all specifications of:

- MOC8020
- PC725V
- PS2633

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	300	V
	Collector-base voltage	VCBO	300	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	5000	Vrms
Operating temperature	Topr	-55 to +100	°C	
Storage temperature	Tstg	-55 to +125	°C	
Soldering temperature 10 second	Tsol	260	°C	

Electrical Characteristics:

(Ta=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	VF	IF =20mA	—	1.2	1.4	V
	Peak forward voltage	VFM	IFM =0.5A	—	—	3.5	V
	Reverse current	IR	VR =4V	—	—	10	uA
	Terminal capacitance	Ct	V=0, f=1kHz	—	30	—	pF
Output	Collector dark current	ICEO	VCE =200V, IF=0	—	—	1	uA
Transfer characteristics	Current transfer ratio	CTR	IF =1mA, VCE=2V	600	—	9000	%
	Collector-emitter saturation voltage	VCE (sat)	IF =20mA, IC=5mA	—	—	1.5	V
	Isolation resistance	Riso	DC500V	5X10 ¹⁰	—	—	ohm
	Floating capacitance	Cf	V=0, f=1MHz	—	0.6	1.0	pF
	Cut-off frequency	fc	VCC =5V, IC=2mA, RL=100ohm	—	7	—	kHz
	Response time (Rise)	tr	VCE=2V, IC=20mA, RL=100ohm	—	60	300	us
	Response time (Fall)	tf		—	50	250	us

CTR Classification	
Model	CTR %
OPTO621HA	600-2000
OPTO621HB	1500-4000
OPTO621HC	3000-6000
OPTO621HD	5000-9000

Fig.1 Current Transfer Ratio vs. Forward Current

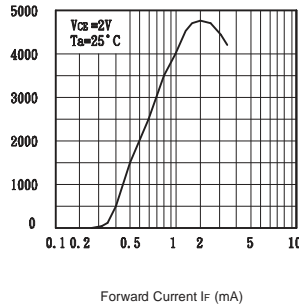


Fig.2 Collector Power Dissipation vs. Ambient Temperature

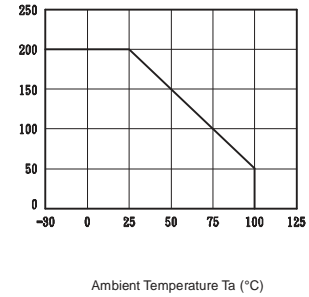


Fig.3 Collector Dark Current vs. Ambient Temperature

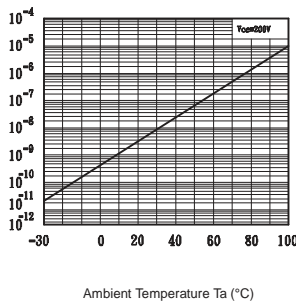


Fig.4 Forward Current vs. Ambient Temperature

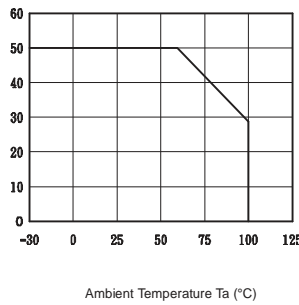


Fig.5 Forward Current vs. Forward Voltage

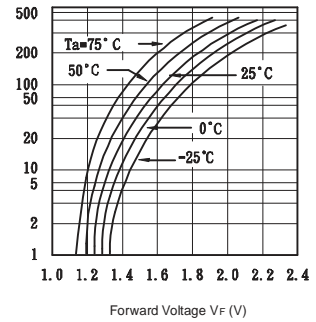


Fig.6 Collector Current vs. Collector-emitter Voltage

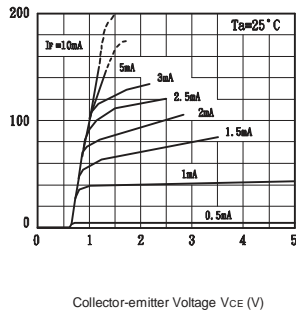


Fig.7 Relative Current Transfer Ratio vs. Ambient Temperature

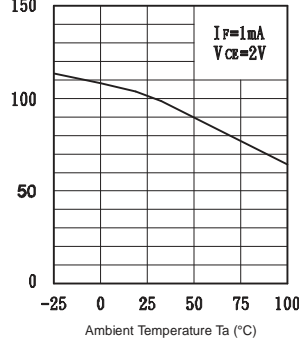


Fig.8 Collector-emitter Saturation Voltage vs. Forward Current

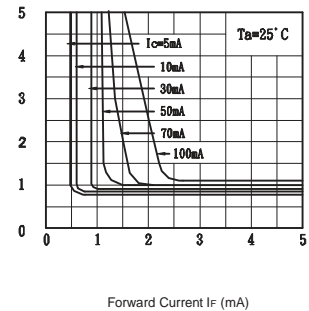


Fig.9 Response Time vs. Load Resistance

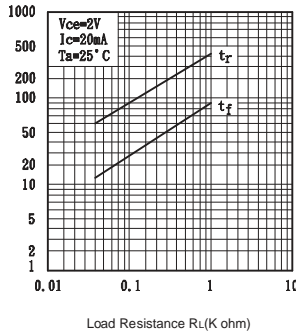


Fig.4 : 6-pin DIP type

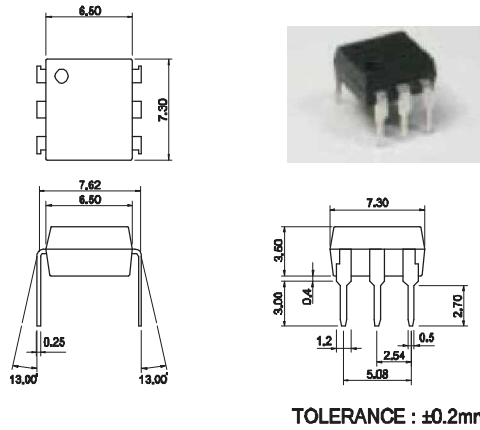


Fig.5 : 6-pin SMD type

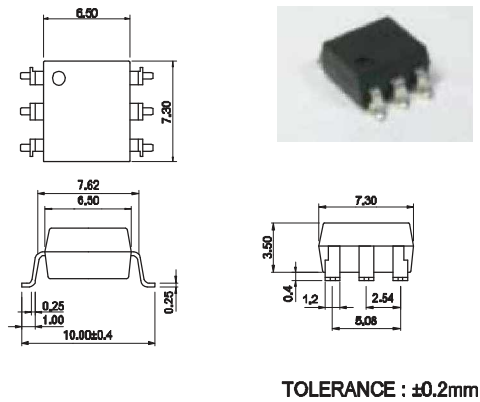


Fig.6 : 6-pin G type

