

**PC-17L1 • PC-17L2 • PC-17L4**

These Photocouplers consist of a Gallium Arsenide Infrared Emitting Diode and a Silicon NPN Phototransistor per a channel.  
 The PC-17L1 has one channel in a 4-pin DIP package.  
 The PC-17L2 has two channels in a 8-pin DIP package.  
 The PC-17L4 has four channels in a 16-pin DIP package.

**FEATURES**

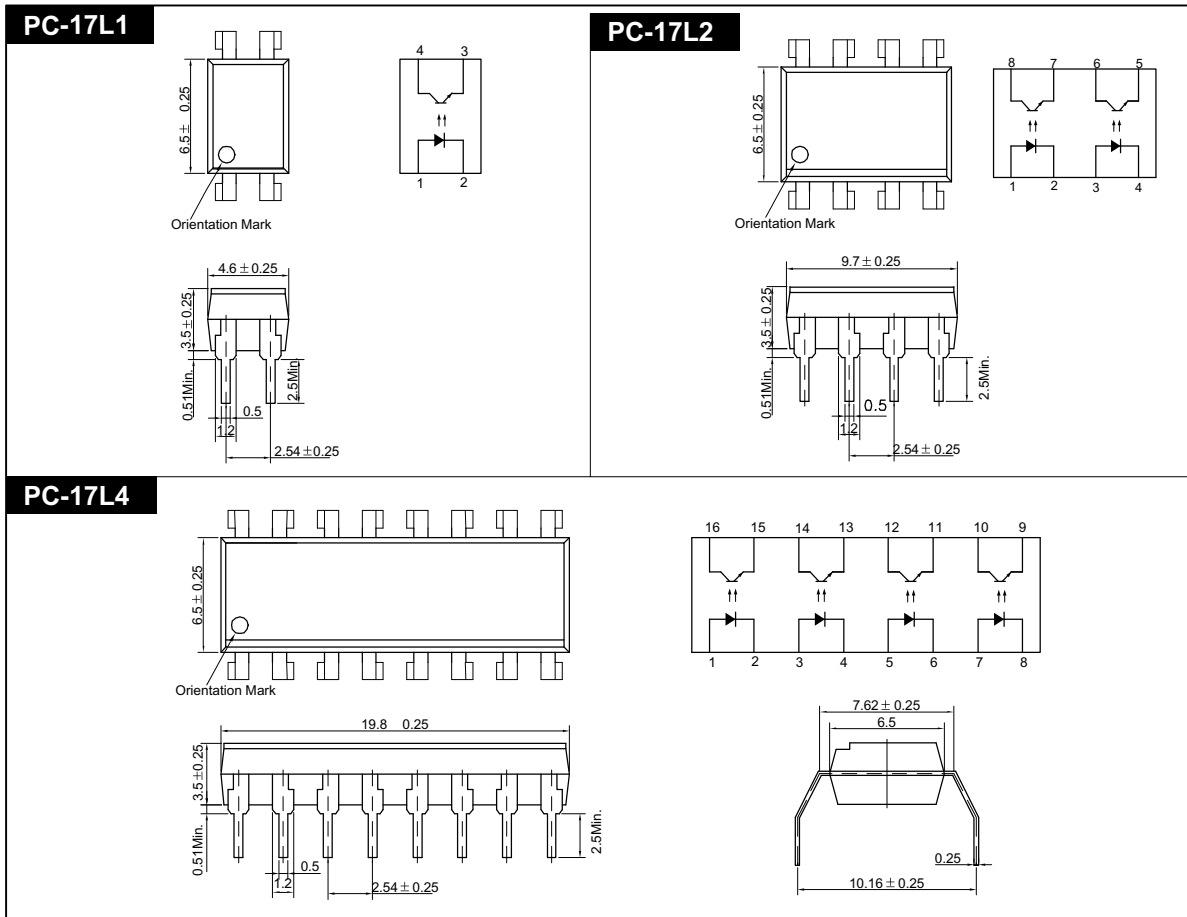
- Small Package Size
- Collector-Emitter Voltage : Min.35V
- Current Transfer Ratio : Min.50% (at  $I_f=5mA$ ,  $V_{CE}=5V$ )
- Electrical Isolation Voltage : AC5000V<sub>rms</sub>
- Creepage/Clearance between Input and Output : Min. 7.0mm
- UL Recognized File No. E107486

**APPLICATIONS**

- Interface between two circuits of different potential
- Vending Machine, Cordless Phone, Key Phone, Fax, Motor Control
- Programmable Logic Control
- Power Supply
- Computer Terminals

**DIMENSION**

(Unit : mm)



## PC-17L1 • PC-17L2 • PC-17L4

### MAXIMUM RATINGS

(Ta=25 )

Parameter		Symbol	Rating	Unit
Input	Forward Current	IF	50	mA
	Reverse Voltage	VR	5	V
	Peak Forward Current* <sup>1</sup>	IFP	1	A
	Power Dissipation	PD	70	mW
Output	Collector-Emitter Breakdown Voltage	BVCEO	35* <sup>4</sup>	V
	Emitter-Collector Breakdown Voltage	BVECO	6	V
	Collector Current	IC	50	mA
	Collector Power Dissipation	PC	150	mW
Input to Output Isolation Voltage* <sup>2</sup>		Viso	AC5000	Vrms
Storage Temperature		Tstg	-55~+125	
Operating Temperature		Topr	-30~+100	
Lead Soldering Temperature* <sup>3</sup>		Tsol	260	
Total Power Dissipation		Ptot	200	mW

\*1. Input current with 100μs pulse width, 1% duty cycle

\*2. Measured at RH=40~60% for 1min

\*3. 1/16 inch form case for 10sec

\*4. Customer Option

### ELECTRO-OPTICAL CHARACTERISTICS

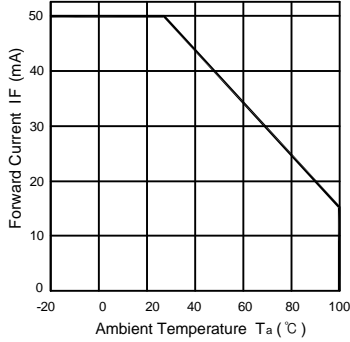
(Ta=25 , unless otherwise noted)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit.
Input	Forward Voltage	VF	IF=10mA	-	1.15	1.30	V
	Reverse Current	IR	VR=5V	-	-	10	μA
	Capacitance	CT	V=0, f=1MHz	-	30	-	pF
Output	Collector-Emitter Breakdown Voltage	BVCEO	IC=0.5mA	35	-	-	V
	Emitter-Collector Breakdown Voltage	BVECO	IE=0.1mA	6	-	-	V
	Collector Dark Current	ICEO	IF=0, VCE=24V	-	-	100	nA
	Capacitance	CCE	VCE=0, f=1MHz	-	10	-	pF
Coupled	Current Transfer Ratio* <sup>5</sup>	CTR	IF=5mA, VCE=5V	50	-	600	%
	Collector-Emitter Saturation Voltage	VCE(SAT)	IF=5mA, IC=1mA	-	0.15	0.4	V
	Input-Output Capacitance	CIO	V=0, f=1MHz	-	1	-	pF
	Input-Output Isolation Resistance	RIO	RH=40~60%, V=500V	-	10 <sup>11</sup>	-	
	Rise Time	tr	VCE=5V, RL=100	-	4	-	μs
	Fall Time	tf	IC=2mA	-	4	-	μs

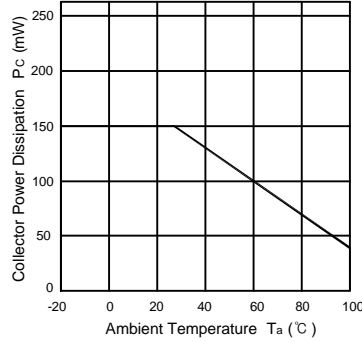
\*5. CTR=(IC/IF) X 100 (%)

PC-17L1 • PC-17L2 • PC-17L4

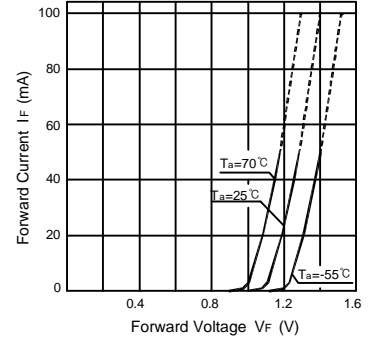
Forward Current vs. Ambient Temperature



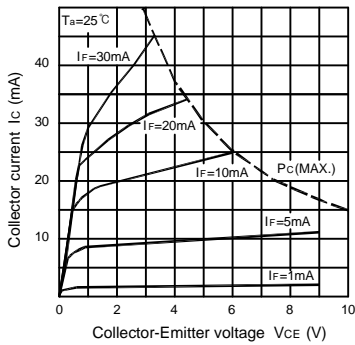
Collector Power Dissipation vs. Ambient Temperature



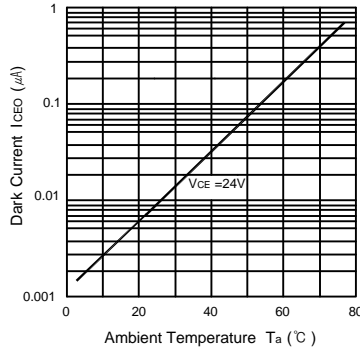
Forward Current vs. Forward Voltage



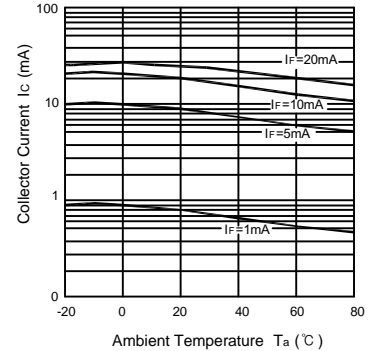
Collector Current vs. Collector-Emitter Voltage



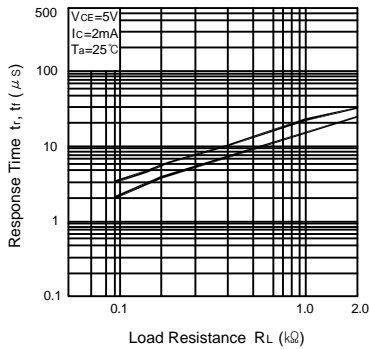
Dark Current vs. Ambient Temperature



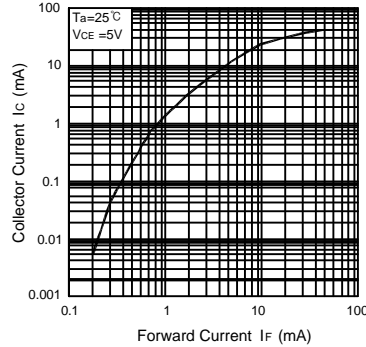
Collector Current vs. Ambient Temperature



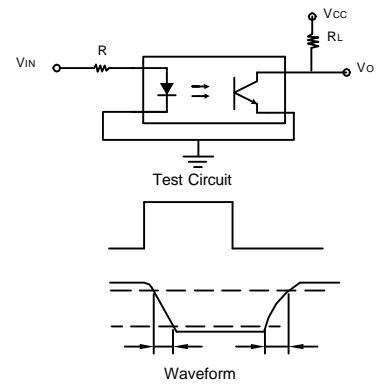
Response Time vs. Load Resistance



Collector Current vs. Forward Current



Switching Time Test Circuit



This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.