



PC-17T1, 2, 4

PC-17T1, 2, 4, photocoupler, is an optically coupled pair employing a GaAs IRED and a silicon NPN phototransistor. PC-17T2 offers two isolated channels and PC-17T4 offers four isolated channels per package.

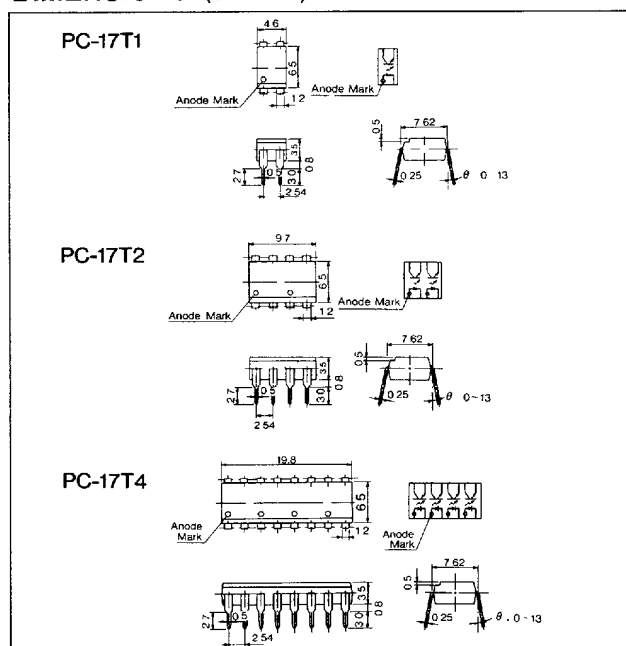
FEATURES

- 2500volt isolation voltage
- 50% minimum current transfer ratio.
- Industry standard Dual In-Line package.
- UL recognized file No. E107486

APPLICATIONS

- Computer terminals
- System appliances
- Signal transmission between circuits of different potentials.

DIMENSIONS (Unit: mm)



MAXIMUM RATINGS

(Ta = 25°C)

Item		Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Pulse forward current*1	I_{FP}	1	A
	Reverse voltage	V_R	5	V
Output	C-E voltage	V_{CEO}	35	V
	E-C voltage	V_{ECO}	5	V
	Collector current	I_C	50	mA
	Collector power dissipation	P_C	150	mW
Operating temp.		$T_{opr.}$	-30 ~ +85	°C
Storage temp.		$T_{stg.}$	-55 ~ +100	°C
Power dissipation		P_D	200	mW
Isolation voltage*2		Viso	2500	Vrms

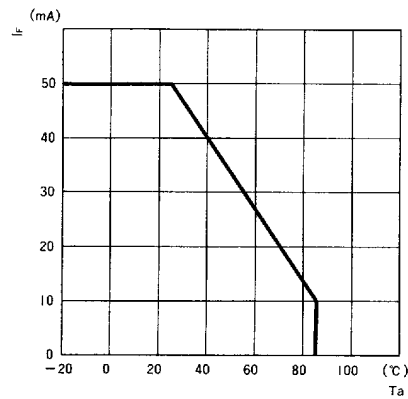
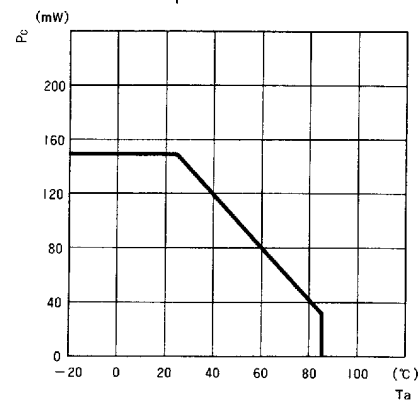
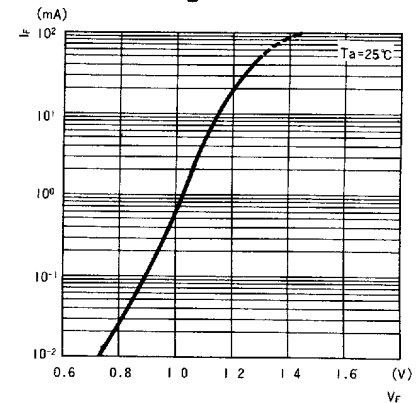
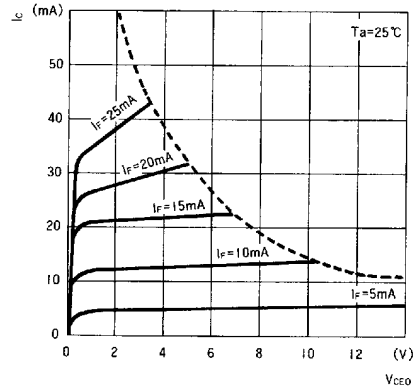
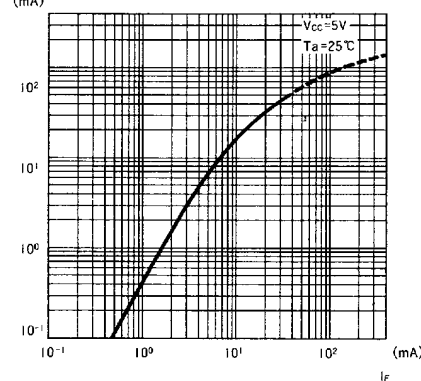
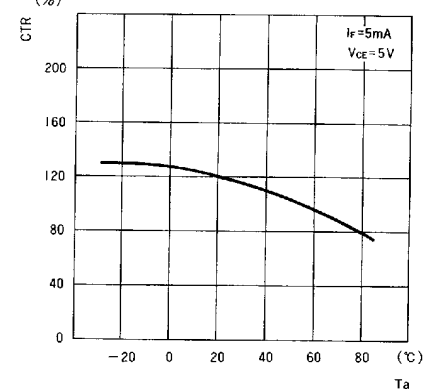
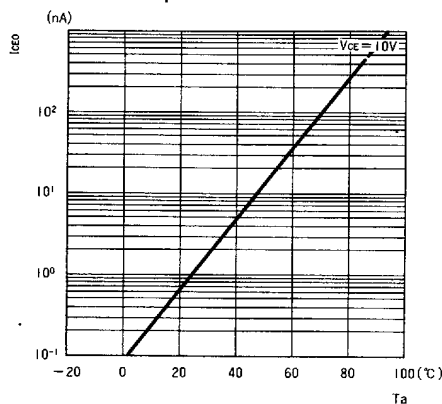
*1 100μsec., 100Hz *2 AC/One minute R.H.=40~60%

ELECTRO-OPTICAL CHARACTERISTICS

(Ta = 25°C)

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage	V_F	$I_F = 50\text{mA}$		1.3	1.6	V
	Reverse current	I_R	$V_R = 5\text{V}$			10	μA
	Capacitance	C_t	$V = 0, f = 1\text{MHz}$		25		pF
Output	C-E breakdown voltage	$V_{(BR)CEO}$	$I_C = 0.5\text{mA}$	35			V
	E-C breakdown voltage	$V_{(BR)ECO}$	$I_E = 0.1\text{mA}$	5			V
	Collector dark current	I_{CED}	$I_F = 0, V_{CE} = 10\text{V}$		10	100	nA
Coupled	Current transfer ratio*1	CTR	$I_F = 5\text{mA}, V_{CE} = 5\text{V}$	50			%
	C-E saturation voltage	$V_{CE(sat)}$	$I_F = 10\text{mA}, I_C = 1\text{mA}$			0.4	V
	Coupling capacitance	C_s	$V = 0, f = 1\text{MHz}$		1.0		pF
	Isolation resistance	R_s	R.H. = 40~60%, $V = 1\text{kVDC}$		10^{11}		Ω
	Rise time, Fall time	t_r, t_f	$V_{CE} = 5\text{V}, R_L = 100\Omega, I_C = 2\text{mA}$		6		μsec.

*1 $CTR(\%) = \frac{I_C}{I_F} \times 100$

Forward current vs Ambient temp.**Collector power dissipation vs Ambient temp.****Forward current vs Forward voltage.****Collector current vs Collector-Emitter voltage.****Collector current vs Forward current.****Current transfer ratio vs Ambient temp.****Collector dark current vs Ambient temp.****Switching characteristics. *1**