

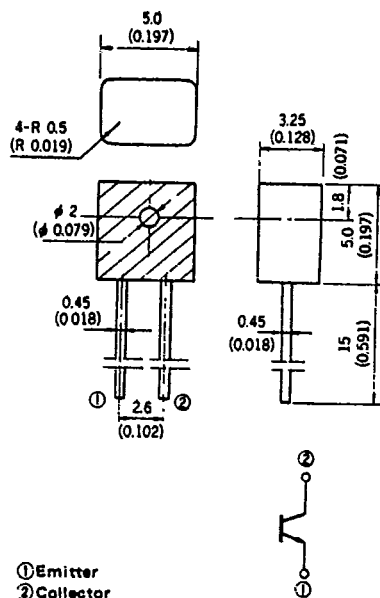
PHOTO TRANSISTOR

PH104

PHOTO TRANSISTOR

PACKAGE DIMENSIONS

in millimeters (inches)



The PH104 is a photo transistor in a plastic molded package, and very suitable for a detector of a photo interrupter.

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Collector to Emitter Voltage	V_{CEO}	30	V
Collector Current	I_C	40	mA
Power Dissipation	P_C	100	mW
Junction Temperature	T_j	100	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +100	$^\circ\text{C}$

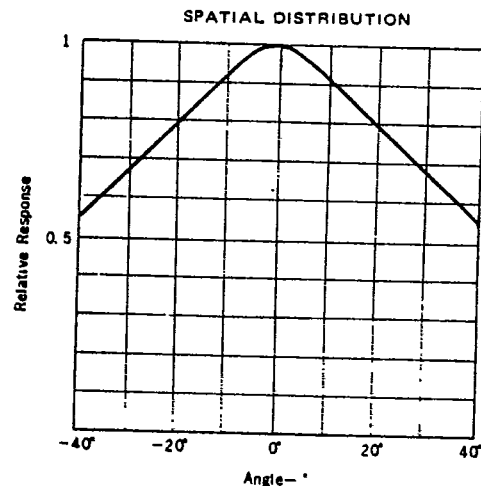
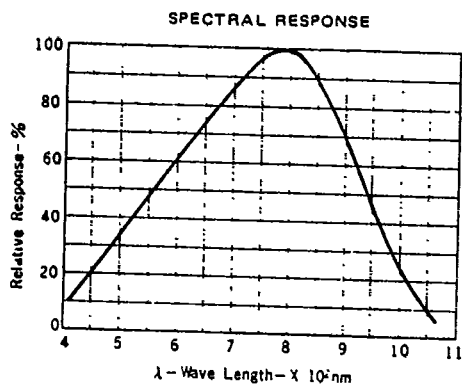
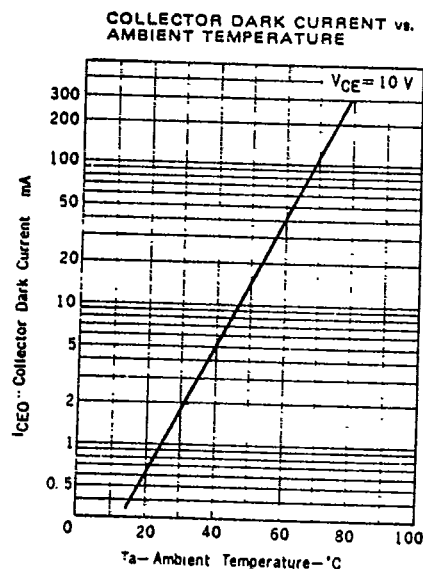
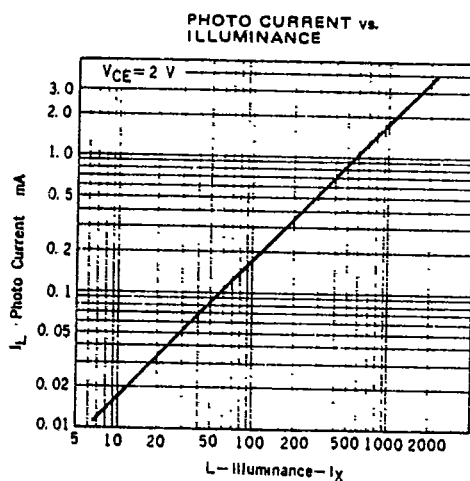
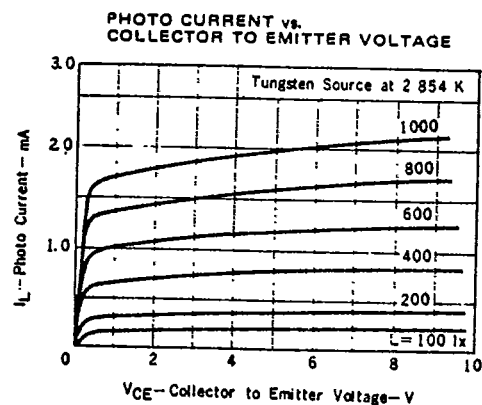
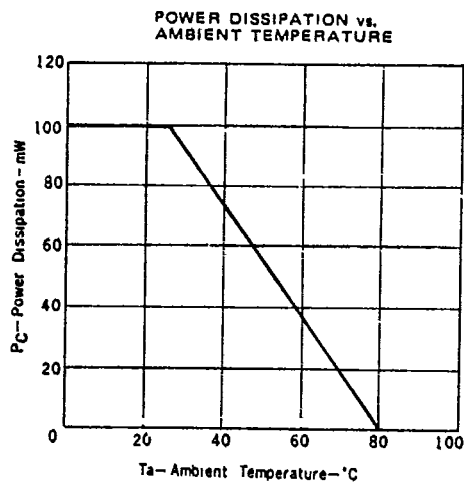
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector to Emitter Dark Current	I_{CEO}			100	nA	$V_{CE} = 10\text{ V}, L = 0\text{ lx}$
Collector saturation Voltage	$V_{CE(sat)}$			0.3	V	$I_C = 0.5\text{ mA}, L = 1\text{ 000 lx}^*$
Photo Current	I_L	20			μA	$V_{CE} = 2.0\text{ V}, L = 100\text{ lx}^*$
Fall Time	t_f		5		μs	$V_{CC} = 10\text{ V}, I_L = 2\text{ mA}, R_L = 100\ \Omega$

*Measured with a tungsten filament lamp operated at a color temperature of 2 854 K.

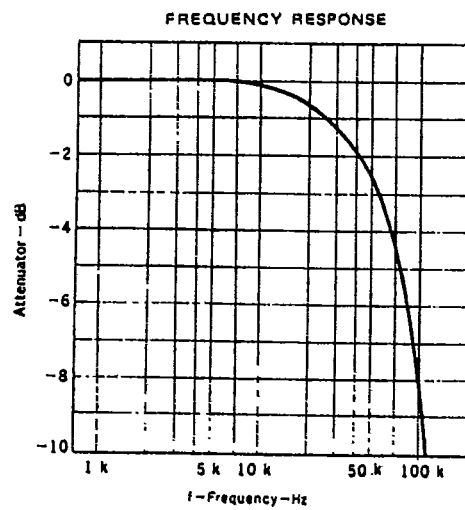
PH104

T-41-61

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

PH104

T-41-61

**FREQUENCY RESPONSE TEST CIRCUIT**