



Part Numbering System

WPPC - D 1 1 06 6 I D - TRU
(1) (2) (3) (4) (5) (6) (7) (8) (9)

(1) **Photo Coupler**

(2) **Input**

A: AC
D: DC

(3) **Channel**

1: 1 Channel
2: 2 Channels
4: 4 Channels

(4) **Output Configuration**

1: Single Photo Transistor
2: Darlington Photo Transistor
3: (6-pin only) Single Photo Transistor without base terminal

(5) **Output Type**

Collector Emitter Voltage

03: 30V(V_{CEO})
035: 35V(V_{CEO})
06: 60V(V_{CEO})
08: 80V(V_{CEO})
30: 300V(V_{CEO})

Propagation Delay Time

D008: 1M bit/s*
D015: 1M bit/s*
D35: High Gain Split PD*
D60: High Gain Split PD*

*Digital High Speed Parts: Code denotes max propagation delay.

(6) **Pin Configuration**

4: 4pin
6: 6pin
8: 8pin
16: 16pin

(7) **CTR Ranking**

Note: The below ranking pertains to WPPC-D11066 Series. No CTR Ranking for Digital High Speed Parts.

Rank	CTR(%)	Rank	CTR(%)
A	60-160% @2mA5V	G	40-80% @10mA5V
B	130-260% @2mA5V	H	63-125% @10mA5V
C	200-400% @2mA5V	I	100-200% @10mA5V
D	300-600% @2mA5V	J	160-320% @10mA5V
E	60-600% @2mA5V	K	200-400% @10mA5V
F	160-256% @10mA10V		

(8) **Package Types**

D: DIP
A: SMD
S: SOP
SS: SSOP
H: Long Creepage Distance

(9) **Taping**

TLD: Tape Direction Left
TRU: Tape Direction Right

Features

- Current transfer ratio.
(CTR: MIN. 60% at $I_F = 2\text{mA}$ $V_{CE} = 5\text{V}$)
- High isolation voltage between input and output.
(Viso: 5000VRMS)
- Compact dual-in-line package.
- Available package types: DIP(shown)/ SMD/ H (Page 147).
- Reflow and Wave Soldering 260 degrees C.

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Applications

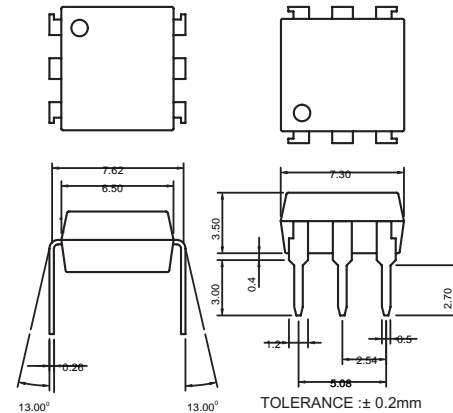
- Registers, copiers, automatic vending machines.
- System appliances, measuring instruments.
- Computer terminals, programmable controllers.
- Communications, telephone, etc.
- Electric home appliances, such as oil fan heaters, microwave oven, washer, refrigerator, air conditioner, etc.
- Medical instruments, physical and chemical equipment.
- Signal transmission between circuits of different potentials and impedances.
- Facsimile equipment, audio, video.
- Switching power supply, laser beam printer.

Absolute Maximum Ratings

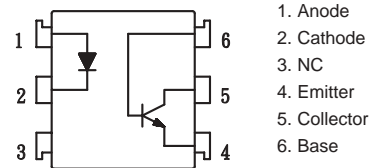
($T_a = 25^\circ\text{C}$)

Parameter		Symbol	Rating	Unit
Input	Forward current	I_F	50	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}	60	V
	Emitter-collector voltage	V_{ECO}	6	V
	Collector-base voltage	V_{CBO}	60	V
	Emitter-base voltage	V_{EBO}	6	V
	Collector current	I_C	50	mA
	Collector power dissipation	P_C	150	mW
Total power dissipation		P_{tot}	200	mW
Isolation voltage 1 minute		Viso	5000	Vrms
Operating temperature		T_{opr}	-30 to +100	$^\circ\text{C}$
Storage temperature		T_{stg}	-55 to +125	$^\circ\text{C}$
Soldering temperature 10 second		T_{sol}	260	$^\circ\text{C}$

Outside Dimension: Unit (mm)



Schematic: Top View



Electro-optical Characteristics

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

Parameter		Symbol	Condition	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F = 20\text{mA}$	—	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	μA
	Terminal capacitance	C_t	$V = 0, f = 1\text{kHz}$	—	30	—	pF
Output	Collector dark current	I_{CEO}	$V_{CE} = 20\text{V}$	—	—	0.1	μA
Transfer characteristics	Current transfer ratio	CTR	$I_F = 2\text{mA}, V_{CE} = 5\text{V}$	60	—	600	%
	Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_F = 20\text{mA}, I_C = 1\text{mA}$	—	0.1	0.3	V
	Isolation resistance	Riso	DC500V	5×10^{10}	10^{11}	—	ohm
	Floating capacitance	C_f	$V = 0, f = 1\text{MHz}$	—	0.6	1.0	pF
	Cut-off frequency	f_c	$V_{CC} = 5\text{V}, I_C = 2\text{mA}, R_L = 100\text{ohm}$	—	80	—	kHz
	Response time (Rise)	t_r	$V_{CE} = 5\text{V}, I_C = 2\text{mA}, R_L = 100\text{ohm}$	—	5	20	μs
Response time (Fall)	t_f	—		4	20	μs	

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