








■ Photocoupler Lineup

<Phototransistor output type>

Package type	Output type	Features	Model No. (series)	Page	
Mini-flat 4-pin Compact, SMT type 	Single phototransistor	General purpose, High collector-emitter voltage	PC357NJ0000F / PC451J00000F	22	
		Low input current	PC367NJ0000F	22	
	Darlington phototransistor	AC input response	PC354NJ0000F	22	
		High sensitivity, High collector-emitter voltage	Low input current	PC364NJ0000F	22
		Low input current	PC355NJ0000F / PC452J00000F	22	
Compact, Half pitch (lead space), SMT type 	Single phototransistor	General purpose, High resistance to noise, etc.	PC3H7J00000F	23	
		Reinforced insulation	PC3HU7xYIP0B	23	
	Darlington phototransistor	AC input response	Low input current	PC3H71xNIP0F	23
			Low input current	PC3H3J00000F / PC3H4J00000F	23
		High sensitivity	Low input current	PC3H41xNIP0F	23
			Low input current	PC3H5J00000F	23
		Low input current	PC3H510NIP0F	23	
		DIP type (4-pin) (4-pin, DIP type) 	Single phototransistor	Reinforced insulation	PC123XNNSZ0F
	General purpose, High collector-emitter voltage, etc.			Low input current	PC1231xNSZ0X
		Darlington phototransistor	High sensitivity, High collector-emitter voltage	Low input current	PC817XNNSZ0F / PC851XNNSZ0F
Low input current	PC8171xNSZ0X			24	
			PC815XNNSZ0F▲ / PC852XNNSZ0F	24	

<OPIC output type>

Package type	Output type	Features	Model No. (series)	Page
Compact, SMT type 	Digital output	General purpose, High response speed	PC400J00000F	25
	Analog/Digital output	High CMR	PC457L0NIP0F	25
DIP type, SMT type 	Digital output	General purpose	PC900V0NSZXF▲	26
	Built-in drive circuit	For inverter control	PC925LENSZ0F▲	26

The model marked with ▲ may not be available in the near future. Contact with SHARP for details before use.



■ Photocouplers

◆ Phototransistor Output Type

<Compact, SMT type>

○: Approved

(Ta = 25°C)

Output type	Model No.	Internal connection diagram	Features	Approved by safety standards ^{*2}	Package	Absolute maximum ratings			Electro-optical characteristics						
				UL		Forward current I _F (mA)	Isolation voltage (AC) V _{iso} (rms) (kV)	Collector-emitter voltage V _{CEO} (V)	Current transfer ratio			Response time			
									CTR (%) MIN.	I _F (mA)	V _{CE} (V)	t _r (μs) TYP.	I _C (mA)	R _L (Ω)	V _{CE} (V)
Single phototransistor output	PC357NJ0000F		General purpose	○	Mini-flat 4-pin	50	3.75	80	50	5	5	4	2	100	2
	PC451J00000F		High collector-emitter voltage	○		50	3.75	350	40	5	5	4	2	100	2
	PC367NJ0000F		Low input current, high resistance to noise ^{*1}	○		10	3.75	80	100	0.5	5	4	2	100	2
	PC354NJ0000F		AC input response	○		±50	3.75	80	20	±1	5	4	2	100	2
	PC364NJ0000F		Low input current, AC input response, high resistance to noise ^{*1}	○		±10	3.75	80	50	±0.5	5	4	2	100	2
Darlington photo-transistor output	PC355NJ0000F		High sensitivity	○	Mini-flat 4-pin	50	3.75	35	600	1	2	60	2	100	2
	PC365NJ0000F		High sensitivity, low input current	○		10	3.75	35	600	0.5	2	60	10	100	2
	PC452J00000F		High collector-emitter voltage	○		50	3.75	350	1 000	1	2	100	20	100	2

*1 CMR: MIN. 10 kV/μs

*2 Please refer to Specification Sheets for model numbers approved by safety standards.



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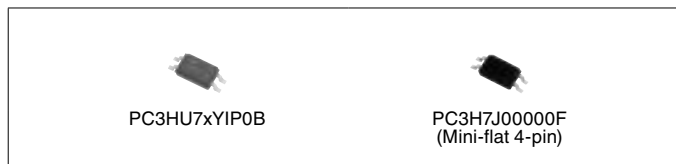
◆ Phototransistor Output Type <Compact, half pitch (lead space) SMT type>

○: Approved

(Ta = 25°C)

Output type	Model No.	Internal connection diagram	Features	Approved by safety standards ³	Package	Absolute maximum ratings			Electro-optical characteristics						
				UL		Forward current I _F (mA)	Isolation voltage (AC) V _{iso} (rms) (kV)	Collector-emitter voltage V _{CE0} (V)	Current transfer ratio			Response time			
									CTR (%) MIN.	I _F (mA)	V _{CE} (V)	tr (μs) TYP.	I _C (mA)	R _L (Ω)	V _{CE} (V)
Single phototransistor output	PC3HU7xYIP0B		Reinforced insulation (internal insulation distance: MIN. 0.4 mm), low-profile package	○ ^{4, 5}	Low-profile mini-flat 4-pin	50	3.75	80	50	5	5	4	2	100	2
	PC3H7J00000F		Standard	○ ⁶		50	2.5	80	20	1	5	4	2	100	2
	PC3H71xNIP0F		High resistance to noise ^{*1} , low input current	○		10	2.5	80	100	0.5	5	4	2	100	2
	PC3H3J00000F		AC input response, high resistance to noise ^{*1}	○	Mini-flat 4-pin	±50	2.5	80	20	±1	5	4	2	100	2
	PC3H4J00000F		AC input response	○ ^{*2, 6}		±50	2.5	80	20	±1	5	4	2	100	2
	PC3H41xNIP0F		AC input response, high resistance to noise ^{*1} , low input current	○		±10	2.5	80	50	±0.5	5	4	2	100	2
Darlington photo-transistor output	PC3H5J00000F		High sensitivity	○	Mini-flat 4-pin	50	2.5	35	600	1	2	60	2	100	2
	PC3H510NIP0F		High sensitivity, low input current	○		10	2.5	35	600	0.5	2	60	2	100	2

- *1 CMR: MIN.10 kV/μs
- *2 A VDE approved type is optionally available.
- *3 Please refer to Specification Sheets for model numbers approved by safety standards.
- *4 VDE, CSA approved
- *5 In conformance with BSI, SEMKO, DEMKO, NEMKO, and FIMKO
- *6 UL, cUL approved



PC3HU7xYIP0B

PC3H7J00000F
(Mini-flat 4-pin)

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◆ Phototransistor Output Type <DIP type (4-pin)>

○: Approved

(Ta = 25°C)

Output type	Model No.	Internal connection diagram	Features	Approved by safety standards ^{*8}			Package	Absolute maximum ratings			Electro-optical characteristics			
				UL	VDE ^{*2}	Others ^{*3}		Forward current I _F (mA)	Isolation voltage (AC) V _{iso} (rms) (kV)	Collector-emitter voltage V _{CEO} (V)	Current transfer ratio CTR (%) MIN.	I _F (mA)	t _r (μs) TYP.	R _L (Ω)
Single phototransistor output	PC123XNNSZ0F ^{*1, *5, *6, *7}		High isolation voltage, reinforced insulation	○	○	○	4-pin DIP	50	5.0	70	50	5	4	100
	PC1231xNSZ0X ^{*1}		High isolation voltage, reinforced insulation, low input current, high resistance to noise ^{*4}	○	○	○		10	5.0	70	50	0.5	4	100
	PC817XNNSZ0F ^{*5, *6, *7}		High isolation voltage	○	-	○ ^{*9}		50	5.0	80	50	5	4	100
	PC8171xNSZ0X ^{*5, *6}		High isolation voltage, low input current, high resistance to noise ^{*4}	○	-	-		10	5.0	80	100	0.5	4	100
	PC851XNNSZ0F ^{*5, *6}		High isolation voltage, high collector-emitter voltage	○	-	-		50	5.0	350	40	5	4	100
Darlington phototransistor output	PC815XNNSZ0F▲ ^{*5, *6}		High isolation voltage, high sensitivity	○	-	-	50	5.0	35	600	1	60	100	
	PC852XNNSZ0F ^{*5, *6}		High isolation voltage, high collector-emitter voltage	○	○	-	50	5.0	350	1 000	1	100	100	

*1 Wide lead spacing type is also available. Creepage distance: 6.4 mm or more, wide lead spacing type: 8 mm or more.

*2 Optionally available.

*3 BSI, SEMKO, DEMKO, NEMKO, FIMKO, CSA

*4 CMR: 10 kV/μs MIN.

*5 Lead forming type is also available for surface mounting.

*6 Taped package of lead forming type for surface mounting is also available.

*7 Wide lead spacing type is also available. Compatible with wide lead spacing type lead-forming models for surface-mount use. Also compatible with taped packages for wide lead spacing type lead-forming models for surface-mount use.

*8 Please refer to Specification Sheets for model numbers approved by safety standards.

*9 UL, CSA approved

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◆ **OPIC Output** (“OPIC” (Optical IC) is a trademark of SHARP Corporation. An OPIC consists of a light-detecting element and signal-processing circuit integrated onto a single chip.)

<Compact, SMT type> (1-1)

○: Approved

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*2		Package	Absolute maximum ratings		Electro-optical characteristics*1						
			UL	VDE*3		Forward current I _F (mA)	Isolation voltage (AC) V _{iso} (rms) (kV)	Low level output voltage			Threshold input current			
								V _{OL} (V) MAX.	T _a (°C)	I _{OL} (mA)	I _F (mA)	I _{FHL} (mA) MAX.	I _{FLH} (mA) MAX.	R _L (Ω)
PC400J00000F		Digital output, normal-off operation	○	—	Mini-flat 5-pin	50	3.75	0.4	0 to +70	16	4	2.0	—	280

A: Rated voltage circuit

*1 Each item is measured at V_{CC}=5V. (PC400)

*2 Please refer to Specification Sheets for model numbers approved by safety standards.

*3 Optionally available.

<Compact, SMT type> (1-2)

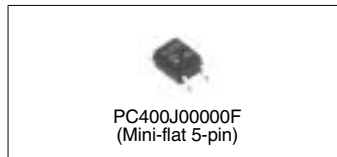
○: Approved

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*1		Package	Absolute maximum ratings		Electro-optical characteristics							
			UL	VDE*2		Forward current I _F (mA)	Isolation voltage (AC) V _{iso} (rms) (kV)	Current transfer ratio				Propagation delay time			
								CTR (%) MIN.	I _F (mA)	V _O (V)	V _{CC} (V)	t _{PHL} (μs) TYP.	t _{PLH} (μs) TYP.	R _L (Ω)	I _F (mA)
PC457LONIP0F		High speed (1 Mb/s), high CMR (15 kV/μs), for flow soldering	○	○	Mini-flat 5-pin	25	3.75	19	16	0.4	4.5	0.2	0.4	1 900	16

*1 Please refer to Specification Sheets for model numbers approved by safety standards.

*2 Optionally available.



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<DIP type, digital output>

○: Approved

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards ⁵		Package	Absolute maximum ratings		Electro-optical characteristics ¹						
			UL	VDE ₄		Forward current I _F (mA)	Isolation voltage (AC) V _{iso} (rms) (kV)	Low level output voltage			Threshold input current			
								V _{OL} (V) MAX.	T _a (°C)	I _{OL} (mA)	I _F (mA)	I _{FHL} (mA) MAX.	I _{FLH} (mA) MAX.	R _L (Ω)
PC900V0NSZXF▲ ^{*2, *3}		Digital output, normal-off operation	○	○	6-pin DIP	50	5.0	0.4	0 to +70	16	4	2.0	-	280

A: Rated voltage circuit

*1 Each item is measured at V_{CC}=5V.

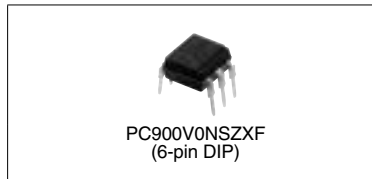
*2 Lead forming type is also available for surface mounting.

*3 Taped package of lead forming type for surface mounting is also available.

*4 Optionally available.

*5 Please refer to Specification Sheets for model numbers approved by safety standards.

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<DIP type, Gate drive type>

○: Approved

(Ta = 25°C)

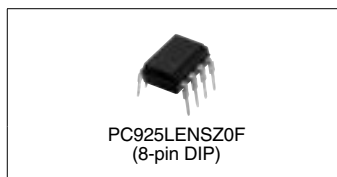
Model No.	Internal connection diagram	Features	Approved by safety standards ³		Package	Absolute maximum ratings		Electro-optical characteristics					
			UL	VDE ₂		Forward current I _F (mA)	Isolation voltage (AC) V _{iso} (rms) (kV)	Propagation delay time					
								t _{PHL} (μs) TYP.	t _{PLH} (μs) TYP.	V _{CC} (V)	I _F (mA)	R _{L1} (Ω)	R _{L2} (Ω)
PC925LENSZ0F▲ ^{*1}		<ul style="list-style-type: none"> Built-in drive circuit directly connectable to MOS-FET and IGBT Peak output current: 2.5 A Low dissipation current (I_{CC} = TYP. 2.5 mA) High resistance to noise (CMR: MIN. 15 kV/μs) 	○	○	8-pin DIP	25	5.0	MAX. 0.5	MAX. 0.5	15 to 30	7 to 16	R _G = 10	-

*1 Lead forming type is also available for surface mounting. Taped package of lead forming type for surface mounting is also available.

*2 A VDE approved type is optionally available.

*3 Please refer to Specification Sheets for model numbers approved by safety standards.

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