■ PHOTOCOUPLER LINEUP

<Phototransistor output type>

Package type	Output type	Features		Model No. (series)	Page
Compact, SMT type	Single phototransistor	General purpose, High collector-emitter voltage, etc.		PC35x series/PC45x series	38
			Low input current	PC367/PC3572xNIT series	38
		AC input response		PC354N/PC359	38
		High sensitivity,	Low input current	PC364	38
	Darlington phototransistor	High collector-emitter voltage, etc.		PC355NT/PC452	38
			Low input current	PC365	38
Compact, Half pitch (lead space), SMT type	Single phototransistor	General purpose, High collector-emitter voltage, etc.		PC3Hx series	39
			Low input current	PC3H71xNIP series	39
		High collector-emitter voltage		PC4H510NIP	39
		AC input response		PC3H3/PC3H4	39
			Low input current	PC3H41xNIP series	39
		4-channel output		PC3Q62/PC3Q6xQ series	39
			Low input current	PC3Q71xNIP series	39
		AC input response		PC3Q63/PC3Q64Q	39
			Low input current	PC3Q41xNIP series	39
	Darlington phototransistor	General purpose		PC3H5	39
			Low input current	PC3H510NIP	39
		High collector-emitter voltage		PC4H520NIP	39
		4-channel output		PC3Q65	39
			Low input current	PC3Q510NIP	39
4-pin DIP type	Single phototransistor	Approved by safety standards other than UL	Isolation thickness: 0.4 mm or more Creepage distance: 6.4 mm or more	PC123/PC123F series	40
(4-pin/8-pin/12-pin/16-pin DIP type available)		General purpose, High collector-emitter voltage, etc.	Low input current	PC1231x series	40
				PC8xx/PC851X series	40
			Low input current	PC8171xNSZ series/ PC8172xNSZ series	40
		AC input response		PC8x3/PC8x4 series	40-41
			Low input current	PC8141xNSZ series	41
		Built-in SBD/High response speed		PC81100NSZ	41
	Darlington phototransistor	General purpose		PC8x5 series	41
			Low input current	PC81510NSZ	41
		High collector-emitter voltage		PC85xx series/PC853HX	41
		Low dark current		PC865/PC875/PC895	41
6-pin DIP type	Single phototransistor	General purpose, High collector-emitter voltage,etc.		PC7xxV series	42
	Darlington phototransistor	AC input response		PC733/PC733H	42
		General purpose, High collector-emitter voltage, etc.		PC7xxV series	42
Case type	Single phototransistor	Isolation thickness: 9.5mm or more Creepage distance: 11.5mm or more		PC512	42

(Approved by safety standards other than UL)

<OPIC output type>

Package type	Output type	Features	Model No. (series)	Page
Compact, SMT type	Digital output	General purpose/High response speed	PC4xx series/PC456L0NIP/ PC410L0NIP	43
	Linear output	General purpose/High CMR	PC417/PC457L0NIP	43
DIP type	Digital output	General purpose, High response speed, 2-channel type, etc.	PC9xxV series/PC956L0NSZ/ PC910L0NSZ/6N137/PC911/ PC912L0NSZ/PC910X series/ PC9D10	44
	Built-in base amplifier	Built-in ON/OFF delay circuit	PC906	45
		Built-in voltage detection circuit	PC904/PC905	45
		For inverter control	PC942/PC92x series	45
	Linear output	High speed, 2-channel type, High CMR, etc.	PC9xxX series/PC957L0NSZ/ 6N series	46
		Wide band range linear output	PC915	46

■ PHOTOCOUPLERS

◆Phototransistor output

<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						
						Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	Collector-emitter voltage V_{CEO} (V)	Current transfer ratio			Response time			
				UL					CTR (%) MIN.	I_F (mA)	V_{CE} (V)	tr (μs) TYP.	I_C (mA)	R_L (Ω)	V_{CE} (V)
Single phototransistor output	PC357N		General purpose	○	Mini-flat 4-pin	50	3.75	35	50	5	5	4	2	100	2
	PC352		General purpose, high resistance to noise*1	○		50	3.75	35	50	5	5	4	2	100	2
	PC356N		High collector-emitter voltage	○		50	3.75	80	100	1	5	6	2	100	2
	PC358T		High collector-emitter voltage	○※		50	3.75	120	20	5	5	4	2	100	2
	PC451		High collector-emitter voltage	○		50	3.75	350	40	5	5	4	2	100	2
	PC450T11		Built-in zener diode for absorption of surge voltage	○		50	3.75	– (BV_{CEO} = 40 to 60V)	1 500	5	2	50	2	100	2
	PC353T		With base terminal	○	Mini-flat 5-pin	50	3.75	80	50	5	5	4	2	100	2
	PC367		Low input current, high CMR (MIN. 10kV/μs)	○	Mini-flat 4-pin	10	3.75	70	100	0.5	5	4	2	100	2
	PC3572xNIT		Low input current, high resistance to noise*1	–		10	3.75	70	100	0.1	5	4	2	100	2
	PC354N		AC input response	○		±50	3.75	35	20	±1	5	4	2	100	2
	PC359		AC input response, high resistance to noise*1	○		±50	3.75	35	20	±1	5	4	2	100	2
	PC364		Low input current, high resistance to noise*1, AC input response	○		±10	3.75	70	50	±0.5	5	4	2	100	2
Darlington photo-transistor output	PC355N		High sensitivity	○		50	3.75	35	600	1	2	60	2	100	2
	PC452		High collector-emitter voltage	○※		50	3.75	350	1 000	1	2	100	20	100	2
	PC365		High sensitivity, low input current	○		25	3.75	35	600	0.5	2	60	2	100	2

*1 CMR: MIN.10 kV/μs ※Optionally available for VDE approved model
*2 Please refer to Specification Sheets for model numbers approved by safety standards.

☆New product

◆Phototransistor output

<Compact, Half pitch (lead space) SMT type>

○: Approved

(Ta = 25°C)

Type	Model No.	Internal connection diagram	Features	Approved by safety standards*3	Package	Absolute maximum ratings			Electro-optical characteristics						
									Current transfer ratio			Response time			
				UL		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	Collector-emitter voltage V_{CEO} (V)	CTR (%) MIN.	I_F (mA)	V_{CE} (V)	tr (μs) TYP.	I_C (mA)	R_L (Ω)	V_{CE} (V)
Single phototransistor output	PC3H2*2		Half pitch, high resistance to noise*1	○	Mini-flat 4-pin	50	2.5	70	20	1	5	4	2	100	2
	PC3H7*2		Half pitch	○※		50	2.5	70	20	1	5	4	2	100	2
	PC3H71xNIP*2		Half pitch, high resistance to noise*1, low input current	○		10	2.5	70	100	0.5	5	4	2	100	2
	PC3H3*2		AC input response, half pitch, high resistance to noise*1	○		±50	2.5	70	20	±1	5	4	2	100	2
	PC3H4*2		AC input response, half pitch	○※		±50	2.5	70	20	±1	5	4	2	100	2
	PC3H41xNIP*2		AC input response, half pitch, high resistance to noise*1 low input current	○		±10	2.5	70	50	±0.5	5	4	2	100	2
	PC4H510NIP*2		Half pitch (lead space), High collector-emitter voltage	○		50	2.5	350	40	5	5	4	2	100	2
	PC3Q67Q*2		Half pitch (lead space), (4-ch)	○※	Mini-flat 16-pin	50	2.5	35	50	5	5	4	2	100	2
	PC3Q66Q*2		Half pitch (lead space), (4-ch), high collector-emitter voltage	○※		50	2.5	80	100	1	5	6	2	100	2
	PC3Q62*2		Half pitch (lead space), (4-ch), high resistance to noise*1	○		50	2.5	70	20	1	5	4	2	100	2
	PC3Q71xNIP*2		Half pitch, (4-ch), high resistance to noise*1, low input current	○		10	2.5	70	100	0.5	5	4	2	100	2
	PC3Q63*2		AC input response, half pitch (lead space), high resistance to noise*1, (4-ch)	○		±50	2.5	70	20	±1	5	4	2	100	2
	PC3Q64Q*2		AC input response, half pitch (lead space), (4-ch)	○※		±50	2.5	35	20	±1	5	4	2	100	2
	PC3Q41xNIP*2		AC input response, half pitch, high resistance to noise*1, low input current, (4-ch)	○		±10	2.5	70	50	±0.5	5	4	2	100	2
Darlington photo-transistor output	PC3H5*2		Half pitch, high sensitivity	○	Mini-flat 4-pin	50	2.5	35	600	1	2	60	2	100	2
	PC3H510NIP		Half pitch (lead space), high sensitivity, low input current	○		25	2.5	35	600	0.5	2	60	2	100	2
	☆ PC4H520NIP		Half pitch (lead space), High collector-emitter voltage	–		50	2.5	350	1 000	1	2	100	2	100	2
	PC3Q65*2		Half pitch (lead space), (4-ch), high sensitivity	○	Mini-flat 16-pin	50	2.5	35	600	1	2	60	2	100	2
	PC3Q510NIP		Half pitch (lead space), (4-ch), high sensitivity, low input current	○		25	2.5	35	600	0.5	2	60	2	100	2

*1 CMR: MIN.10 kV/μs
*1 High-temperature tested models
*3 Please refer to Specification Sheets for model numbers approved by safety standards.
※ Optionally available for VDE approved model

☆New product

◆Phototransistor output

<DIP type (4/8/12/16-pin)>

○: Approved

(Ta = 25°C)

Output Type	Model No.	Internal connection diagram	Features	Approved by safety standards*12				Package	Absolute maximum ratings			Electro-optical characteristics			
												Current transfer ratio		Response time	
				UL	TÜV (VDE 0884)	VDE 0884	Others		Forward current IF (mA)	Isolation voltage (AC) Viso (rms) (kV)	Collector-emitter voltage VCEO (V)	CTR (%) MIN.	IF (mA)	tr (μs) TYP.	RL (Ω)
Single phototransistor output	PC123*1		High isolation voltage, long creepage distance	○	–	○*2	*3	4-pin DIP	50	5.0	70	50	5	4	100
	PC1231xNSZ		High isolation voltage, long creepage distance, low input current, high resistance to noise*4	○	–	○*2	–		50	5.0	70	50	0.5	4	100
	PC810*5		High isolation voltage, high speed at high load resistance	○	–	○*2	–		50	5.0	35	60	1	10	1 000
	PC812		High isolation voltage, high resistance to noise	○	–	○*2	–		50	5.0	35	90	5	4	100
	PC816		High isolation voltage, high collector-emitter voltage	○	–	○*2	–		50	5.0	70	50	5	4	100
	PC826		High isolation voltage, high collector-emitter voltage (2-ch)	○	○*7	–	–	8-pin DIP	50	5.0	70	50	5	4	100
	PC846		High isolation voltage high collector-emitter voltage (4-ch)	○	○*8	–	–	16-pin DIP	50	5.0	70	50	5	4	100
	PC817*5, *6, *7	(Same as PC816)	High isolation voltage	○	○*2	–	–	4-pin DIP	50	5.0	35	50	5	4	100
	PC827*5, *9	(Same as PC826)	High isolation voltage (2-ch)	○	○*2	–	–	8-pin DIP	50	5.0	35	50	5	4	100
	PC837*5, *9		High isolation voltage (3-ch)	○	○*2	–	–	12-pin DIP	50	5.0	35	50	5	4	100
	PC847*5, *9	(Same as PC846)	High isolation voltage (4-ch)	○	○*2	–	–	16-pin DIP	50	5.0	35	50	5	4	100
	PC8171xNSZ		High isolation voltage, low input current, high resistance to noise*4	○	–	–	–	4-pin DIP	10	5.0	70	100	0.5	4	100
	☆ PC8172xNSZ		High isolation voltage, low input current, high resistance to noise*4	–	–	–	–		10	5.0	70	100	0.1	4	100
	PC818*5, *6		High isolation voltage, high speed at high load resistance	○	○*2	–	–		50	5.0	35	10	1	7	1 000
	PC851X		High isolation voltage, high collector-emitter voltage	○	–	–	–		50	5.0	350	40	5	4	100
	PC866*10		High isolation voltage, low current drive type, high collector-emitter voltage	○	–	–	–		50	5.0	80	100	1	8	100
	PC8D66		High isolation voltage, low current drive type, high collector-emitter voltage (2-ch)	○	–	–	–	8-pin DIP	50	5.0	80	100	1	8	100
	PC8Q66		High isolation voltage, low current drive type, high collector-emitter voltage (4-ch)	○	–	–	–	16-pin DIP	50	5.0	80	100	1	8	100
	PC829		High isolation voltage, symmetrical terminal configuration	○	○*2	–	–	8-pin DIP	50	5.0	35	50	5	4	100
	PC849		High isolation voltage, symmetrical terminal configuration	○	○*2	–	–	16-pin DIP	50	5.0	35	50	5	4	100
	PC813		High isolation voltage, AC input response, high resistance to noise	○	–	○*2	–	4-pin DIP	±50	5.0	35	20	±1	4	100
	PC823		High isolation voltage, AC input response, high resistance to noise (2-ch)	○	○*7	–	–	8-pin DIP	±50	5.0	35	20	±1	4	100
	PC814*5, *6		High isolation voltage, AC input response	○	–	○*2	–	4-pin DIP	±50	5.0	35	20	±1	4	100

For the note *1 to *12, see next page.

<DIP type (4/8/12/16-pin)> (continued)

○: Approved

(Ta = 25°C)

Output Type	Model No.	Internal connection diagram	Features	Approved by safety standards*12				Package	Absolute maximum ratings			Electro-optical characteristics			
												Current transfer ratio		Response time	
				UL	TÜV (VDE 0884)	VDE 0884	Others		Forward current IF (mA)	Isolation voltage (AC) Viso (rms) (kV)	Collector-emitter voltage VCEO (V)	CTR (%) MIN.	IF (mA)	tr (μs) TYP.	RL (Ω)
Single phototransistor output	PC824		High isolation voltage, AC input response (2-ch)	○	○*7	–	–	8-pin DIP	±50	5.0	35	20	±1	4	100
	PC844		High isolation voltage, AC input response (4-ch)	○	○	–	–	16-pin DIP	±50	5.0	35	20	±1	4	100
	PC8141xNSZ		High isolation voltage, AC input response, low input current, high resistance to noise*4	○	–	–	–	4-pin DIP	±10	5.0	70	50	±0.5	4	100
	PC81100NSZ	Schottky barrier diode	Built-in schottky barrier diode, toff: 35μs TYP. (In saturation, RL = 100kΩ)	○	–	–	–		50	5.0	70	50	5	ton: TYP. 9	100
Darlington phototransistor output	PC815*5, *6		High isolation voltage, high sensitivity	○	○*2	–	–	4-pin DIP	50	5.0	35	600	1	60	100
	PC825*11		High isolation voltage, high sensitivity (2-ch)	○	○*2	–	–	8-pin DIP	50	5.0	35	600	1	60	100
	PC835*11		High isolation voltage, high sensitivity (3-ch)	○	○*2	–	–	12-pin DIP	50	5.0	35	600	1	60	100
	PC845*11		High isolation voltage, high sensitivity (4-ch)	○	○*2	–	–	16-pin DIP	50	5.0	35	600	1	60	100
	PC81510NSZ		High isolation voltage, high sensitivity, low input current	–	–	–	–	4-pin DIP	25	5.0	35	600	0.5	60	100
	PC852X*5, *6		High isolation voltage, high collector-emitter voltage	○	–	–	–		50	5.0	350	1 000	1	100	100
	PC853X*5, *6		High isolation voltage, high collector-emitter voltage	○	–	–	–		50	5.0	350	1 000	1	100	100
	PC853HX*5		High isolation voltage, high collector-emitter voltage	○	–	–	–		50	5.0	350	1 000	1	100	100
	PC8D52		High isolation voltage high collector-emitter voltage (2-ch)	○	–	–	–	8-pin DIP	50	5.0	350	1 000	1	100	100
	PC8Q52		High isolation voltage high collector-emitter voltage (4-ch)	○	–	–	–	16-pin DIP	50	5.0	350	1 000	1	100	100
	PC865		High isolation voltage, high sensitivity, low dark current, high collector-emitter voltage	○	–	–	–	4-pin DIP	50	5.0	70	1 000	1	100	100
	PC875		High isolation voltage, high sensitivity, low dark current, high collector-emitter voltage (2-ch)	○	–	–	–	8-pin DIP	50	5.0	70	1 000	1	100	100
	PC895		High isolation voltage, high sensitivity, low dark current, high collector-emitter voltage (4-ch)	○	–	–	–	16-pin DIP	50	5.0	70	1 000	1	100	100

*1 Wide lead spacing type (F type) is also available. Creepage distance PC123: 6.4 mm or more, PC123F: 8 mm or more
*2 Optionally available.
*3 BSI, SEMKO, DEMKO, NEMKO, FIMKO, CSA
*4 CMR: 10 kV/μs MIN.
*5 Lead forming type (I 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 (F type) is also available. Lead forming type (FI type) of F type is also available.Taped package is also available for I and FI type of lead forming type.
*8 In conformance with VDE 0884 (Optionally available)
*9 Approved by UL, TÜV as multi-channel type of PC817.
*10 High reliability type PC866Q is also available.
*11 Approved by UL, TÜV as multi-channel type of PC815.
*12 Please refer to Specification Sheets for model numbers approved by safety standards.

Internet address for Electronic Components Group
http://sharp-world.com/ecg/

◆Phototransistor output

<DIP type (6-pin)>

○: Approved

(Ta = 25°C)

Output Type	Model No.	Internal connection diagram	Features	Approved by safety standards*5		Package	Absolute maximum ratings			Electro-optical characteristics			
				UL	TÜV (VDE 0884)		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	Collector-emitter voltage V_{CEO} (V)	Current transfer ratio CTR (%) MIN.	Current transfer ratio I_F (mA)	Response time tr (µs) TYP.	Response time R_L (Ω)
Single phototransistor output	PC714V*1, *2, *4		High isolation voltage	○	–	6-pin DIP	50	5.0	35	50	5	4	100
	PC724V*1, *2, *4		High isolation voltage, large input current	○	–		150	5.0	35	20	100	4	100
	PC702V*1, *2, *4		High isolation voltage, high collector-emitter voltage	○	○*3		60	5.0	70	40	10	2	75
	PC703V*1, *2, *4		High isolation voltage, high collector-emitter voltage	○	○*3		50	5.0	70	40	10	4	100
	PC713V*2, *4		High isolation voltage	○	○*3		50	5.0	35	50	5	4	100
	PC723V*2, *4		High isolation voltage, high collector-emitter voltage	○	○*3		50	5.0	80	50	5	6	100
	PC733		High isolation voltage, AC input response	○	–		±50	5.0	35	15	±1	4	100
	PC733H*1, *2		High isolation voltage, large input current drive, AC input response	○	–		±150	5.0	35	20	±100	4	100
Darlington phototransistor output	PC715V*1, *2, *4		High isolation voltage, high sensitivity	○	○*3		50	5.0	35	600	1	60	100
	PC716V*1, *4		High isolation voltage, high sensitivity	○	○*3		50	5.0	35	1 000	1	130	100
	PC725V*1, *2, *4		High isolation voltage, high sensitivity, high collector-emitter voltage, high power	○	○*3		50	5.0	300	1 000	1	100	100

*1 Lead forming type (I type) is also available for surface mounting.
*2 Taped package of lead forming type for surface mounting is also available.
*3 Optionally available.
*4 Packages with slightly different edge geometry are also available for higher cost efficiency.
*5 Please refer to Specification Sheets for model numbers approved by safety standards.

◆Phototransistor output

<Case 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	TÜV (VDE 0884)	VDE 0884	Others		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	Collector-emitter voltage V_{CEO} (V)	Current transfer ratio CTR (%) MIN.	Current transfer ratio I_F (mA)	Response time tr (µs) TYP.	Response time R_L (Ω)
Single phototransistor output	PC512		High isolation voltage, long creepage distance	○	–	○	*1	PWB mounting type 4-pin	50	5.0	35	10	20	3	100

*1 BSI, SEMKO, DEMKO, FIMKO, CSA
*2 Please refer to Specification Sheets for model numbers approved by safety standards.

☆New product

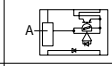
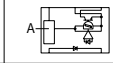
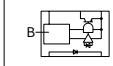
◆OPIC* output

<Compact, SMT type>

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

○: Approved

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*2		Package	Absolute maximum ratings		Electro-optical characteristics*1						
								Low level output voltage				Threshold input current		
			UL	TÜV (VDE 0884)		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	V_{OL} (V) MAX.	Ta (°C)	I_{OL} (mA)	I_F (mA)	I_{FHL} (mA) MAX.	I_{FLH} (mA) MAX.	R_L (Ω)
PC400		Digital output, normal-off operation	○	–	Mini-flat 5-pin	50	3.75	0.4	0 to +70	16	4	2.0	–	280
PC401		Digital output, normal-on operation	○	–		50	3.75	0.4	0 to +70	16	0	–	2.0	280
☆ PC456L0NIP		Built-in preamplifier, high speed transmission (2 Mb/s)	–	–		25	3.75	0.6	–40 to +100	2.4	10	5.0	–	20 k
PC410		High speed (10 Mb/s)	○	–		20	2.5	0.6	0 to +70	13	5	5.0	–	350
PC410L0NIP		high speed (10 Mb/s), High CMR (10 kV/μs), For soldering reflow	–	–		20	3.75	0.6	–40 to +85	13	5	5.0	–	350

A: Rated voltage circuit B: Voltage regulator

*1 Each item is measured at Vcc=5V. (PC400, PC401)

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

Model No.	Internal connection diagram	Features	Approved by safety standards*1		Package	Absolute maximum ratings		Electro-optical characteristics							
								Current transfer ratio				Propagation delay time			
			UL	TÜV (VDE 0884)		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	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)
PC417		High speed (1 Mb/s)	○	–	Mini-flat 5-pin	25	2.5	19	16	0.4	4.5	0.3	0.3	1 900	16
☆ PC457L0NIP		High speed (1 Mb/s), high CMR (15 kV/μs) For soldering reflow	–	–		25	3.75	19	16	0.4	4.5	0.2	0.2	1 900	16

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

☆New product

◆OPIC output

<DIP type, Digital output>

○: Approved, △: Under application

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*7		Package	Absolute maximum ratings		Electro-optical characteristics*1						
								Low level output voltage				Threshold input current		
			UL	TÜV (VDE 0884)		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	V_{OL} (V) MAX.	Ta (°C)	I_{OL} (mA)	I_F (mA)	I_{FHL} (mA) MAX.	I_{FLH} (mA) MAX.	R_L (Ω)
PC900V*2, *3, *6		Digital output, normal-off operation	○	○*4	6-pin DIP	50	5.0	0.4	0 to +70	16	4	2.0	–	280
PC901V*6		Digital output, normal-on operation	○	–		50	5.0	0.4	0 to +70	16	0	–	2.0	280
☆ PC956L0NSZ		Built-in preamplifier, high speed transmission (2 Mb/s)	–	–	8-pin DIP	25	5.0	0.6	–40 to +100	2.4	10	5.0	–	20 k
6N137		Digital output, High speed (10 Mb/s)	○	–		20	2.5	0.6	0 to +70	13	5	5.0	–	–
PC910X*5		Digital output, High speed (10 Mb/s)	○	–		20	2.5	0.6	0 to +70	13	5	5.0☆	–	350
☆ PC910L0NSZ		Digital output, High speed (10 Mb/s), high CMR (20 kV/μs)	△	–		20	5.0	0.6	–40 to +85	13	5	5.0	–	350
PC911*2, *3			○	–		20	4.0	0.6	0 to +70	13	5	5.0	–	–
☆ PC912L0NSZ		Digital output, High speed (25 Mb/s), high CMR (20 kV/μs)	–	–		–*8	5.0	1.0	–40 to +85	4	V_{IN} = V_{IL}	–	–	–
PC9D10		Digital output, High speed (10 Mb/s) (2-ch)	○	–		15	2.5	0.6	0 to +70	13	5	5.0	–	350

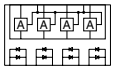
A: Rated voltage circuit B: Voltage regulator

*1 Each item is measured at Vcc=5V, except the low level output voltage of PC9D10 (at Vcc=5.5V).
*2 Lead forming type (I type) is also available for surface mounting.
*3 Taped package of lead forming type for surface mounting is also available.
*4 Optionally available.
*5 There is no "X" at the end of the model numbers of products that have been submitted to testing for compliance of safety standards.
*6 Packages with slightly different edge geometry are also available for higher cost efficiency.
*7 Please refer to Specification Sheets for model numbers approved by safety standards.
*8 No forward current rating due to voltage input. (rated input voltage: –0.5 to 6.0 V)

<DIP type, Digital output (continued)>

○: Approved

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*2		Package	Absolute maximum ratings		Electro-optical characteristics*1					
								Propagation delay time			Threshold input current		
			UL	TÜV		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	t_{PLH} (ms) TYP	t_{PHL} (ms) TYP	R_L (Ω)	I_{FHL} (mA) MAX.	I_{FLH} (mA) MAX.	R_L (Ω)
PC906	 A: Light detector +Signal processing circuit	Built-in ON/OFF delay circuit, high speed DC input	○	–	16-pin DIP	±26	4.0	0.75 TYP.	0.75 TYP.	4 000	–	±1.5	4 000

*1 Each item is measured at Vcc = 5V
*2 Please refer to Specification Sheets for model numbers approved by safety standards.

○: Approved

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*4			Package	Absolute maximum ratings			Electro-optical characteristics					
										Collector dark current		Current transfer ratio			
			UL	TÜV (VDE 0884)	Others		Anode current I_A (mA)	Isolation voltage (AC) Viso (rms) (kV)	Collector-emitter voltage V_{CEO} (V)	I_{CEO} (A) MAX.	V_{CE} (V)	CTR (%) MIN.	V_K (V)	I_A (mA)	V_{CE} (V)
PC904*1, *2		Built-in voltage detection circuit	○	–	–	8-pin DIP	50	5.0	35	1×10^{-7}	35	50	$V_K = V_{REF}$	5	5
PC905		Long creepage distance, built-in voltage detection circuit	○	○*3	BSI SEMKO DEMKO		50	5.0	70	1×10^{-7}	20	40	$V_K = V_{REF}$	10	5

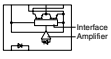
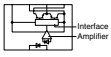
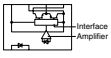
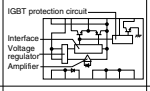
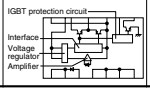
*1 Lead forming type (I type) is also available for surface mounting.
*2 Taped package of lead-forming type for surface mounting is also available.
*3 Optionally available.
*4 Please refer to Specification Sheets for model numbers approved by safety standards.

◆OPIC output

<DIP type, Built-in base amplifier>

○: Approved

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*3		Package	Absolute maximum ratings			Electro-optical characteristics					
									Propagation delay time					
			UL	TÜV		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	Output current I_{O1} (A)	t_{PHL} (µs) TYP.	t_{PLH} (µs) TYP.	V_{CC} (V)	I_F (mA)	R_{L1} (Ω)	R_{L2} (Ω)
PC942		For controlling inverter-controlled air-conditioner	○	–	8-pin DIP	25	5.0	0.5	2.0	2.0	6	5	5	10
PC923X*1		For driving MOS-FET and IGBT, high speed	○	*2		20	5.0	0.1	0.3	0.3	24	5	R_G = 47	–
PC924X*1		For driving inverter IGBT	○	*2		25	5.0	0.1	1.0	1.0	24	10	R_G = 47	–
PC928		For driving inverter IGBT, built-in short protection circuit	○	*2	14-pin SMT (Half pitch lead)	25	4.0	0.1	1.0	1.0	24	10	R_G = 47	–
PC929		For driving inverter IGBT, high speed, built-in short protection circuit	○	*2		20	4.0	0.1	0.3	0.3	24	5	R_G = 47	–

*1 Lead forming type (I type) is also available for surface mounting. Taped package of lead forming type for surface mounting is also available.
*2 Optionally available for VDE0884
*3 Please refer to Specification Sheets for model numbers approved by safety standards.

◆OPIC output

<DIP type, Linear output>

○: Approved, △: Under application

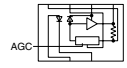
(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*4		Package	Absolute maximum ratings		Electro-optical characteristics							
								Current transfer ratio				Propagation delay time*1			
			UL	TÜV		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	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)
PC917X*2		Linear output High speed (1 Mb/s)	○	–	8-pin DIP	25	2.5	19	16	0.4	4.5	0.3	0.3	1 900	16
PC957L0NSZ		Linear output High speed (1 Mb/s), high CMR(15 kV/µs)	△	–		25	5.0	19	16	0.4	4.5	0.2	0.6	1 900	16
PC9D17*3		Linear output High speed (1 Mb/s) (2-ch)	○	–		25	2.5	19	16	0.4	4.5	0.3	0.3	1 900	16
PC918X*2		Linear output High speed (1 Mb/s)	○	–		25	2.5	19	16	0.4	4.5	0.3	0.3	1 900	16
6N136			○	–		25	2.5	19	16	0.4	4.5	0.3	0.3	1 900	16
6N138		Linear output High speed, high sensitivity	○	–		20	2.5	300	1.6	0.4	4.5	2	7	2 200	1.6
6N139			○	–		20	2.5	400	0.5	0.4	4.5	5	10	4 700	0.5

*1 Vcc = 5V
*2 There is no "X" at the end of the model numbers of products that have been submitted to testing for compliance of safety standards.
*3 Taped package of lead forming type for surface mounting is also available.
*4 Please refer to Specification Sheets for title(s) of safety standards.

○: Approved

(Ta = 25°C)

Model No.	Internal connection diagram	Features	Approved by safety standards*1		Package	Absolute maximum ratings			Electro-optical characteristics				
									Output noise voltage	Cut-off frequency		Differential gain	Differential phase
			UL	TÜV		Forward current I_F (mA)	Isolation voltage (AC) Viso (rms) (kV)	Supply voltage Vcc (V)	Vono (rms) mV TYP.	f_{CH} (MHz) TYP.	f_{CL} (Hz) TYP.	DG (%) TYP.	DP (°) TYP.
PC915		For insulation of video signal input terminal for TV, wide-band linear output	○	–	8-pin DIP	25	5.0	–0.5 to +13	4	8	10	3	–3

*1 Please refer to Specification Sheets for title(s) of safety standards.

PC357N
[PC354N, PC355N, PC352, PC356N, PC358T, PC359, PC364, PC365, PC367, PC450T11, PC451, PC452, PC3572xNIT]

PC3H4
[PC3H2, PC3H3, PC3H5, PC3H7, PC3H41xNIP, PC3H510NIP, PC3H71xNIP, PC4H510NIP, PC4H520NIP]

PC400
[PC353T, PC401, PC410, PC410L0NIP, PC417, PC456L0NIP, PC457L0NIP: white]

PC3Q64Q
[PC3Q62, PC3Q63, PC3Q65, PC3Q510NIP, PC3Q66Q, PC3Q67Q, PC3Q41xNIP, PC3Q71xNIP]

Lead-forming type
Ex. PC818I

PC817
[PC810, PC812, PC813, PC814, PC815, PC818, PC816, PC851X, PC852X, PC853X, PC853HX, PC865, PC866, PC123, PC1231xNSZ, PC81100NSZ, PC8141xNSZ, PC81510NSZ, PC8171xNSZ]

PC827
[PC823, PC824, PC829, PC825, PC826, PC875, PC8D52]

PC837
(PC835)

PC847
[PC844, PC845, PC846, PC895, PC8Q52]

PC713V
[PC714V, PC702V, PC703V, PC713V, PC715V, PC716V, PC723V, PC724V, PC725V, PC900V, PC901V]

PC733H
(PC733)

PC512

PC910X
[PC910L0NSZ: black, PC9D10, PC9D17, PC917X, PC956L0NSZ: black, PC957L0NSZ: black, PC918X, 6N136, 6N137, 6N138, 6N139, PC911, PC912L0NSZ: black]

PC904

PC905

PC906

PC915
(PC923X, PC924X, PC942)

PC928
(PC929)

Internet address for Electronic Components Group
http://sharp-world.com/ecg/

■ PHOTOTRIAC COUPLER / PHOTOTHYRISTOR COUPLER LINEUP

<PHOTOTRIAC COUPLERS>

Package	Applied voltage	ON-state current (rms)	Features		Model No.	Page
Mini-flat (SMD)	AC 100 V lines (V_{DRM} = 400V)	0.05 A	High speed		S11MS7*2	49
	AC 200 V lines (V_{DRM} = 600V)	0.05 A	General purpose, built-in zero-cross circuit		S11MS4*4	49
			General purpose		S2S3*4 / S2S5	49
				Built-in zero-cross circuit	S21MS4*4 / S2S4*4	49
			Reinforced isolation		PC3SG11YIZ	49
				Built-in zero-cross circuit	PC3SG21YIZ	49
DIP type	AC 100 V lines (V_{DRM} = 400V)	0.1 A	General purpose		S11MD5V*4	49
				Built-in zero-cross circuit	S11MD4V*4	50
			General purpose (5th-pin cut)		S11MD5TS*4 / S11MD9T*3 / S11MD7T*2 / PC2SD11NTZA*4	49
				Built-in zero-cross circuit	S11MD4T*4	50
			Reinforced isolation (4-pin)		S11ME5*4	49
				Built-in zero-cross circuit	S11ME6*4	50
	AC 200 V lines (V_{DRM} = 600V)	0.1 A	General purpose		S21MD3V*4	49
				Built-in zero-cross circuit	S21MD4V*4 / S21MD6V*3 / S21MD10V*2	50
			General purpose (5th-pin cut)		S21MD3TV*4 / S21MD9T*3 / S21MD7T*2 / PC3SD12NTZA*4 / PC3SD11NTZB*3 / PC3SD11NTZC*2	49
				Built-in zero-cross circuit	S21MD4TV*4 / S21MD8T*2 / PC3SD21NTZB*3 / PC3SD21NTZC*2 / PC3SD21NTZD*1	50
			4-pin		S21MT1*4	49
				Built-in zero-cross circuit	S21MT2*4	50
			Reinforced isolation (4-pin)		S21ME5*4	49
				Built-in zero-cross circuit	S21ME6*4	50
			Reinforced isolation (6-pin)		S21ME3*3	49
				Built-in zero-cross circuit	S21ME4*3	50
			Reinforced isolation (5th-pin cut)		PC3SF11YVZA*4 / PC3SF11YVZB*3	49
				Built-in zero-cross circuit	PC3SF21YVZA*4 / PC3SF21YVZB*3	50
	AC 200 V lines (V_{DRM} = 800V)	0.1 A	General purpose		PC4SD11NTZB*3 / PC4SD11NTZC*2	49
				Built-in zero-cross circuit	PC4SD21NTZC*2 / PC4SD21NTZD*1	50
			Reinforced isolation		PC4SE11NSZ*4 / PC4SF11YVZA*4 / PC4SF11YVZB*3	49
				Built-in zero-cross circuit	S21ME8*1 / PC4SF21YVZB*3 / PC4SF21YVZC*2	50

Minimum trigger current: *1 I_{FT} = 3 mA, *2 I_{FT} = 5 mA, *3 I_{FT} = 7 mA, *4 I_{FT} = 10 mA

<PHOTOTHYRISTOR COUPLERS>

Package	Applied voltage	ON-state current (rms)	Features	Number of pins	Model No.	Page
DIP type	AC 100 V lines (V_{DRM} = 400V)	0.2 A	Half wave control	6-pin	S12MD1V*3	50
	AC 200 V lines (V_{DRM} = 600V)	0.2 A	Full wave control	8-pin	S12MD3*3	50
			Half wave control	6-pin	S22MD1V*2	50
				7-pin (8-pin package)	S22MD2*1	50
			Full wave control	8-pin	S22MD3*2	50

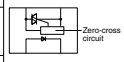
Minimum trigger current: *1 I_{FT} = 8mA, *2 I_{FT} = 10mA, *3 I_{FT} = 15mA

☆New product

■ PHOTOTRIAC COUPLERS

○ : Approved

(Ta = 25°C)

Type	Model No.	Internal connection diagram	Features	Approved by safety standards*10 UL	TÜV (VDE 0884)	VDE 0884	Others	Package	Absolute maximum ratings: ON-state current IT (rms) (A)	Repetitive peak OFF-state voltage VDRM (V)	Isolation voltage (AC) Viso (rms) (kV)	Electro-optical characteristics: Min. trigger current IFT (mA) MAX.	VD (V)	RG (kΩ)
For triggering	S11MS7		100 V lines, high speed, high resistance to noise	○	–	○*6	–	Mini-flat 4-pin	0.05	400	2.5	5	6	–
	S2S3		200 V lines, mini-flat package type	○	○*6	–	–		0.05	600	3.75	10*11	6	–
	S2S5		200 V lines, mini-flat package type	–	–	–	–		0.05	600	3.75	10	6	–
	PC3SG11YIZ		200 V lines, mini-flat package type, reinforced insulation (isolation thickness: 0.4 mm)	○	○*6	–	–		0.05	600	3.75	10	6	–
	S11MS4		100 V lines, mini-flat package type, built-in zero-cross circuit	○	–	–	–		0.05	400	3.75	10	6	–
	S21MS4		200 V lines, mini-flat package type, built-in zero-cross circuit	○	○*6	–	–		0.05	600	3.75	10	6	–
	S2S4		200 V lines, mini-flat package type, built-in zero-cross circuit	○	○*6	–	–		0.05	600	3.75	10*11	6	–
	PC3SG21YIZ		200 V lines, mini-flat package type, reinforced insulation (isolation thickness: 0.4 mm), built-in zero-cross circuit	○	○*6	–	–		0.05	600	3.75	10	6	–
	S11MD5V*7		100 V lines, high isolation voltage	○	○*6	–	–	6-pin DIP	0.1	400	5.0	10	6	–
	S21MD3V*1, *7		200 V lines, high resistance to noise	○	○*6	–	–		0.1	600	5.0	15	6	–
	S21ME3*1, *4, *7		200 V lines, approved by European safety standards	○	–	○*6	*2		0.1	600	5.0	7	6	–
	PC4SE11NSZ		200 V lines (high voltage resistance)	○	–	○*6	○*9		0.1	800	5.0	10	6	–
	S11MD5TS*3		100 V lines	○	–	–	–		0.1	400	5.0	10	6	–
	S21MD3TV*3, *5		200 V lines	○	○*6	–	–		0.1	600	5.0	10	6	–
	PC3SD12NTZA*3		200 V lines	○	–	○*6	○*8		0.1	600	5.0	10	6	RL = 0.1
	S11MD7T*3		100 V lines, low input drive current	○	–	–	–		0.1	400	5.0	5	6	–
	PC2SD11NTZA*3		100 V lines	○	–	○*6	○*8		0.1	400	5.0	10	6	RL = 0.1
	S11MD9T*3		100 V lines, low input drive	○	–	–	–		0.1	400	5.0	7	6	–
	PC3SD11NTZB*3		200 V lines	○	–	○*6	○*8		0.1	600	5.0	7	6	RL = 0.1
	☆ PC4SD11NTZB*3		200 V lines, repetitive peak-OFF-state voltage	○	–	○*6	○*8		0.1	800	5.0	7	6	RL = 0.1
	S21MD7T*3		200 V lines, low input drive current	○	○*6	–	–		0.1	600	5.0	5	6	–
	PC3SD11NTZC*3		200 V lines	○	–	○*6	○*8		0.1	600	5.0	5	6	RL = 0.1
	☆ PC4SD11NTZC*3		200 V lines, repetitive peak-OFF-state voltage	○	–	○*6	○*8		0.1	800	5.0	5	6	RL = 0.1
	S21MD9T*3		200 V lines, low input drive	○	○*6	–	–		0.1	600	5.0	7	6	–
	PC3SF11YVZA*3		200 V lines, reinforced isolation	○	–	○	*2		0.1	600	5.0	10	6	RL = 0.1
	PC3SF11YVZB*3		200 V lines, reinforced isolation	○	–	○	*2		0.1	600	5.0	7	6	RL = 0.1
	☆ PC4SF11YVZA*3		200 V lines, reinforced isolation, repetitive peak-OFF-state voltage	○	–	○	*2		0.1	800	5.0	10	6	RL = 0.1
	☆ PC4SF11YVZB*3		200 V lines, reinforced isolation, repetitive peak-OFF-state voltage	○	–	○	*2		0.1	800	5.0	7	6	RL = 0.1
	S11ME5		100 V lines, approved by European safety standards	○	–	–	*2	4-pin DIP	0.1	400	5.0	10	6	RL = 0.1
	S21MT1		200 V lines, compact	○	–	–	*8		0.1	600	5.0	10	6	–
	S21ME5*4 ▲		200 V lines, approved by European safety standards	○	–	○*6	*2		0.1	600	5.0	10	6	RL = 0.1

*1 Lead forming type for surface mounting is also available.
*2 In conformance with BSI, SEMKO, DEMKO, and FIMKO
*3 These are molded pin No. 5.
*4 Wide lead spacing type is also available. FI type is also available for S21ME4. Lead forming type of S21ME6 is also available for surface mounting.
*5 There is no "V" at the end of the model numbers of products that have been submitted to testing for compliance of safety standards.
*6 Optionally available
*7 Taped package of lead forming type for surface mounting is also available.
*8 CSA approval
*9 SEMKO, DEMKO approval
*10 Please refer to Specification Sheets for model numbers approved by safety standards.
*11 IFT (MAX.): 5 mA type is available as an option
The model marked with ▲ may not be available in the near future. Contact Sharp sales personnel for details before use.

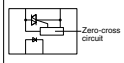
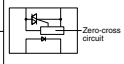
Internet address for Electronic Components Group
http://sharp-world.com/ecg/

☆New product

■ PHOTOTRIAC COUPLERS / PHOTOTHYRISTOR COUPLERS

○ : Approved

(Ta = 25°C)

Type	Model No.	Internal connection diagram	Features		Approved by safety standards*12				Package	Absolute maximum ratings			Electro-optical characteristics		
													Min. trigger current		
					UL	TÜV (VDE 0884)	VDE 0884	Others		ON-state current IT (rms) (A)	Repetitive peak OFF-state VDRM (V)	Isolation voltage (AC) Viso (rms) (kV)	IFT (mA) MAX.	VD (V)	RG (kΩ)
For triggering	S11MD4V		Full wave control	100 V lines, built-in zero-cross circuit	○	–	–	–	6-pin DIP	0.1	400	5.0	10	6	–
	S21MD4V*1			200 V lines, built-in zero-cross circuit	○	○*6	–	–		0.1	600	5.0	15	6	–
	S21MD6V*1			200 V lines, built-in zero-cross circuit	○	–	–	–		0.1	600	5.0	7	6	RL = 0.1
	S21MD10V*1			200 V lines, built-in zero-cross circuit	○	–	○	–		0.1	600	5.0	5	6	RL = 0.1
	S21ME4*1, *4, *7			200 V lines, built-in zero-cross circuit, approved by European safety standards	○	–	○*6	*2		0.1	600	5.0	7	6	–
	S21ME8*4			200 V lines, built-in zero-cross circuit, low input drive current	○	–	○*6	*11	6-pin DIP (5 pins)	0.1	800	5.0	3	6	–
	S11MD4T*3			100 V lines, built-in zero-cross circuit	○	–	–	–	6-pin DIP	0.1	400	5.0	10	6	–
	S21MD4TV*3, *5			200 V lines, built-in zero-cross circuit	○	–	–	–		0.1	600	5.0	10	6	–
	S21MD8T*3, *7			200 V lines, built-in zero-cross circuit, low input drive current	○	○*6	–	–		0.1	600	5.0	5	6	–
	PC3SD21NTZB*3			200 V lines, low zero-cross voltage: MAX. 20 V, built-in zero-cross circuit	○	–	○*6	–		0.1	600	5.0	7	4	RL = 0.1
	PC3SD21NTZC*3			200 V lines, low zero-cross voltage: MAX. 20 V, built-in zero-cross circuit	○	–	○*6	–		0.1	600	5.0	5	4	RL = 0.1
	PC3SD21NTZD*3			200 V lines, low zero-cross voltage: MAX. 20 V, built-in zero-cross circuit	○	–	○*6	–		0.1	600	5.0	3	4	RL = 0.1
	☆ PC4SD21NTZC*3			200 V lines, built-in zero-cross circuit, repetitive peak-OFF-state voltage	○	–	○*6	*8	6-pin DIP	0.1	800	5.0	5	4	RL = 0.1
	☆ PC4SD21NTZD*3			200 V lines, built-in zero-cross circuit, repetitive peak-OFF-state voltage	○	–	○*6	*8		0.1	800	5.0	3	4	RL = 0.1
	PC3SF21YVZA*3			200 V lines, reinforced isolation built-in zero-cross circuit	○	–	○	*2		0.1	600	5.0	10	4	RL = 0.1
	PC3SF21YVZB*3			200 V lines, reinforced isolation built-in zero-cross circuit	○	–	○	*2		0.1	600	5.0	7	4	RL = 0.1
	☆ PC4SF21YVZB*3			200 V lines, reinforced isolation, built-in zero-cross circuit, repetitive peak-OFF-state voltage	○	–	○	*2		0.1	800	5.0	7	4	RL = 0.1
	☆ PC4SF21YVZC*3			200 V lines, reinforced isolation, built-in zero-cross circuit, repetitive peak-OFF-state voltage	○	–	○	*2		0.1	800	5.0	5	4	RL = 0.1
	S11ME6 ▲			100 V lines, approved by European safety standards, built-in zero-cross circuit	○	–	–	*2	4-pin DIP	0.1	400	5.0	10	6	–
	S21MT2			200 V lines, compact, built-in zero-cross circuit	○	–	–	*8		0.1	600	5.0	10	6	–
	S21ME6*10			200 V lines, built-in zero-cross circuit	○	–	○*6	*2		0.1	600	5.0	10	6	–
	S12MD3			100 V lines	○	–	–	–	8-pin DIP	0.2	400	1.5	15	6	–
	S22MD3			200 V lines	–	–	–	–		0.2	600	2.5	10	6	–
	S12MD1V*1, *7		half wave control	100 V lines	○	–	–	–	6-pin DIP	0.2	400	5.0	15	6	20
	S22MD1V*1, *7			200 V lines	○	○*6	–	–		0.2	600	5.0	10	6	20
	S22MD2			200 V lines	–	–	–	–	8-pin DIP (7 pins)	0.2	600	5.0	8	6	20

*1 Lead forming type for surface mounting is also available.
*2 In conformance with BSI, SEMKO, DEMKO, and FIMKO
*3 These are molded pin No. 5.
*4 Wide lead spacing type is also available. FI type is also available for S21ME4. Surface mount and lead forming type of S21ME6 is also available.
*5 There is no "V" at the end of the model numbers of products that have been submitted to testing for compliance of safety standards.
*6 Optionally available
*7 Taped package of lead forming type for surface mounting is also available.
*8 CSA approval
*9 SEMKO, DEMKO approval
*10 Wide lead spacing type (FI) is also available.
*11 In conformance with BSI, SEMKO and DEMKO
*12 Please refer to Specification Sheets for model numbers approved by safety standards.
The model marked with ▲ may not be available in the near future. Contact Sharp sales personnel for details before use.

S11MS3
[S11MS4,S21MS4, S11MS7, S2S3, S2S4, S2S5, PC3SG11YIZ, PC3SG21YIZ]

S11MD5V
[S11MD4V, S21MD3V, S21MD4V/ S21MD6V/S21MD10V]

PC2SD11NTZA
[PC3SD12NTZA, PC3SD11NTZB, PC3SD11NTZC, PC3SD21NTZB, PC3SD21NTZC, PC3SD21NTZD, PC4SD11NTZB, PC4SD11NTZC, PC4SD21NTZC, PC4SD21NTZD]

PC3SF21YVZA
[PC3SF11YVZA, PC3SF11YVZB, PC3SF21YVZB, PC4SF11YVZA, PC4SF11YVZB, PC4SF21YVZB, PC4SF21YVZC]

S21ME3
[S21ME4 PC4SE11NSZ]

S21ME8

S11MD5TS
[S11MD4T, S21MD3TV, S21MD4TV, S11MD7T, S21MD7T, S21MD8T, S11MD9T, S21MD9T]

S11ME5
[S11ME6 ▲, S21ME5 ▲, S21ME6, S21MT1, S21MT2]

S21ME5F
(S21ME6F)

S21ME3F
(S21ME4F)

S12MD3

S22MD3

S12MD1V
(S22MD1V)

S22MD2