

Optical Device

PRODUCTS



*Fiber Optic Communication/
Light Beam Application Devices*



Photo Detectors



Photocoupler



OCMOS FETTM



POF Link



Infra-Red Link Unit

PRODUCTS

Optical Device

Fiber Optic Communication/Light Beam Application Devices

Product Map of Optical Communication/ Light Beam Application Device

Laser Diodes

- ◆ *Visible LD for Beam Applications*
- ◆ *For Fiber Optic Communications*
 - *Fabry Perrot LD*
 - *DFBLD*
- ◆ *For Analog Applications*
- ◆ *For EDFA Pumping and High Power OTDR Applications*

Detectors

- ◆ *PIN Photo Diodes*
- ◆ *Avalanche Photo Diodes*

Photo Detectors

PIN Photo-diode

-  *PIN photo-diode for remote control application*

Light Receiving IC

-  *Photo-diode with built-in amplifier for Optical Storage (Custom device)*

Photocoupler

Optical Device

 *General-purpose Tr. Photocoupler*

 *SOP Photocoupler*

 *High Speed Photocoupler*

 *Analog Linear Photocoupler*

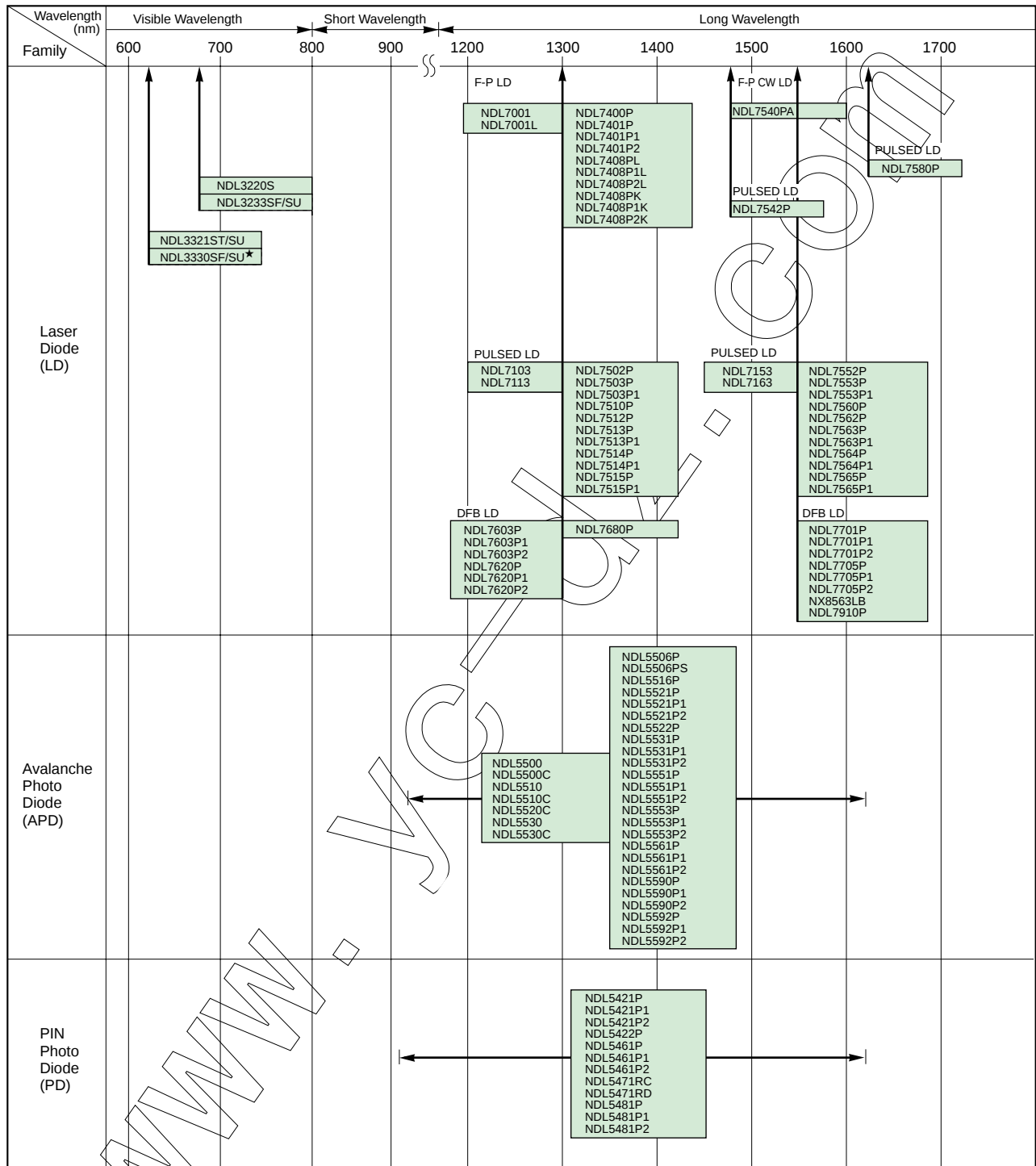
 *High Speed Photocoupler*

 *Inverter Control Photocoupler*

PRODUCTS

Fiber Optic Communication/Light Beam Application Devices

■ Product map of optical communication/light beam application device



→ : Mark wavelength or operating range

★ : Under development

Modules are available with FC-PC or SC-PC connector.

Fiber Optic Communication/Light Beam Application Devices

Laser Diodes

■ Visible LD for Beam Applications

Part number	Absolute maximum ratings			Typical characteristics						Remarks
	P _o /P _f (mW)	T _c (°C)	T _{stg} (°C)	I _{th} (mA)	I _{op} (mA)	P _o /P _f (mW)	λ _p (nm)	θ _⊥ (deg)	θ _∥ (deg)	
				TYP.	TYP.	TYP.	TYP.	TYP.	TYP.	
NDL3220S	6	−10 to +60	−40 to +85	20	30	5	670	30	8	Low threshold current
NDL3233SF/SU	35	−10 to +70	−40 to +100	50	100	35	685	21	9	Magneto-optical disk application
NDL3321ST/SU	6	−10 to +70	−40 to +85	40	60	5	650	30	8	DVD application
NDL3330SF/SU*	35	−10 to +70	−40 to +100	50	100	30	660	21	9	DVD-RAM, High density Magneto-optical disk application

*: Under development

Fiber Optic Communication/Light Beam Application Devices

Laser Diodes

■ For Fiber Optic Communications (Fabry Perrot LD)

Part number	Absolute maximum ratings			Typical characteristics (25°C)					Remarks
	I _F (mA)	T _C (°C)	T _{stg} (°C)	P _o /P _r (mW)	I _{th} (mA)	λ _c (nm)	σ ^{*2} (nm)	t _r /t _f (ns)	
				MIN.	TYP.	TYP.	TYP.	MAX.	
NDL7001	—	−40 to +85	−55 to +125	5.0	10	1310	1.0	0.5/0.5	with monitor PD, small package
NDL7001L	—	−40 to +85	−55 to +125	5.0	10	1310	1.0	0.5/0.5	with monitor PD, small package
NDL7400P	I _{th} +50	−20 to +65	−40 to +70	2.0*1	10	1310	1.0	1.0/1.0	with TEC
NDL7401P/P1/P2	I _{th} +50	−40 to +85	−40 to +85	2.0	10	1310	1.3	0.5/0.5	with monitor PD
NDL7408PL/P1L/P2L	I _{th} +50	−40 to +85	−40 to +85	0.2	10	1310	1.3	0.5/0.5	with monitor PD
NDL7408PK/P1K/P2K	I _{th} +50	−40 to +85	−40 to +85	1.0	10	1310	1.3	0.5/0.5	with monitor PD
NDL7800P*	I _{th} +50	−40 to +85	−40 to +85	0.2	5	1310	2.0	0.5/0.5	Ceramic mini DIL

*1: TYP.

*2: RMS (−20 dB)

*: Under development

Fiber Optic Communication/Light Beam Application Devices

Laser Diodes

■ For Fiber Optic Communications (DFBLD)

Part number	Absolute maximum ratings				Typical characteristics				Remarks
	I _F (mA)	P _O / P _F (mW)	T _C (°C)	T _{stg} (°C)	P _O / P _F (mW)	I _{th} (mA)	λ _p (nm)	t _r / t _f (ns)	
					MIN.	TYP.	TYP.	TYP.	
NDL7603P/P1/P2	150	5	−40 to +85	−40 to +85	2.0	50 ^{*1}	1310	0.5/0.5	with monitor PD
NDL7620P/P1/P2	150	5	0 to +70	−40 to +85	2.0	45 ^{*1}	1310	0.04/0.1	with monitor PD
NDL7701P/P1/P2	150	5	−20 to +85	−40 to +85	2.0	15	1550	0.5/0.5	with monitor PD
NDL7705P/P1/P2	I _{th} + 50	5	−40 to +85	−40 to +85	2.0	50 ^{*1}	1550	0.5/0.5	with monitor PD
NX8563LB	300	—	−20 to +65	−40 to +85	10 ^{*2}	20	ITU-T ^{*3}	—	with PMF fiber
NDL7910P	150	20	−20 to +70	−40 to +85	0.5	7	1550 ^{*4}	0.125/ 0.125	Integrated Modulator for 2.5G

*1: MAX.

*2: TYP.

*3: Wavelength selectable for ITU-T standards.

*4: Wavelength selectable for ITU-T standards upon request.

Fiber Optic Communication/Light Beam Application Devices

Laser Diodes

■ For Analog Applications

Part number	Absolute maximum ratings				Typical characteristics (25°C)						Remarks
	I _F (mA)	P _F (mW)	T _C (°C)	T _{stg} (°C)	I _{th} (mA)	P _F (mW)	λ _D (nm)	RIN (dB/Hz)	CSO (dBc)	CTB (dBc)	
					TYP.	MIN.	TYP.	TYP.	TYP.	TYP.	
NDL7680P	150	15	-20 to +65	-40 to +70	20	3	1310	-155	-55	-60	with monitor PD, isolator and TEC

Fiber Optic Communication/Light Beam Application Devices

Laser Diodes

■ For EDFA Pumping and High Power OTDR Applications

Part number	Absolute maximum ratings			Typical characteristics						Remarks
	I _F (mA)	T _C (°C)	T _{stg} (°C)	I _{th} (mA)	I _{op} (mA)	P _o / P _r (mW)	λ _c (nm)	σ* ¹ (nm)	t _r / t _f (ns)	
				TYP.	TYP.	TYP.	TYP.	MAX.	MAX.	
NDL7540PA	600	-20 to +70	-40 to +85	40	500	110	1480	8	—	with TEC, thermistor and m-PD
NDL7542P	600* ²	-20 to +65	-40 to +70	30	500* ²	80* ²	1480* ²	10	2/2	with TEC
NDL7103	1200* ²	-40 to +70	-55 to +125	35	1000* ²	320* ²	1310* ²	7	2/2	ø5.6 can
NDL7113	600* ²	-40 to +70	-55 to +125	20	400* ²	175* ²	1310* ²	10	1/1	ø5.6 can
NDL7502P	1200* ²	-20 to +65	-40 to +70	35	1000* ²	190* ²	1310* ²	10	2/2	with TEC
NDL7503P/P1	1200* ²	-20 to +60	-40 to +85	35	1000* ²	180* ²	1310* ²	10	2/2	
NDL7510P	600* ²	-20 to +65	-40 to +70	20	400* ²	55* ²	1310* ²	10	1/1	with TEC
NDL7512P	600* ²	-20 to +65	-40 to +70	20	400* ²	110* ²	1310* ²	10	1/1	with TEC
NDL7513P/P1	600* ²	-20 to +60	-40 to +85	20	400* ²	110* ²	1310* ²	10	1/1	
NDL7514P/P1	600* ²	-20 to +60	-40 to +85	20	400* ²	50* ²	1310* ²	10	1/1	
NDL7515P/P1	600	-20 to +60	-40 to +85	20	400* ²	30* ²	1310* ²	10	1/1	
NDL7153	1200* ²	-40 to +70	-55 to +125	45	1000* ²	240* ²	1550* ²	8	2/2	ø5.6 can
NDL7163	600* ²	-40 to +70	-55 to +125	30	400* ²	120* ²	1550* ²	10	1/1	ø5.6 can
NDL7552P	1200* ²	-20 to +65	-40 to +70	40	1000* ²	125* ²	1550* ²	10	2/2	with TEC
NDL7553P/P1	1200* ²	-20 to +60	-40 to +85	45	1000* ²	145* ²	1550* ²	10	2/2	
NDL7560P	600* ²	-20 to +65	-40 to +70	20	400* ²	30* ²	1550* ²	10	1/1	with TEC
NDL7562P	600* ²	-20 to +65	-40 to +70	40	400* ²	80* ²	1550* ²	10	1/1	with TEC
NDL7563P/P1	600* ²	-20 to +60	-40 to +85	40	400* ²	80* ²	1550* ²	10	1/1	
NDL7564P/P1	600* ²	-20 to +60	-40 to +85	40	400* ²	40* ²	1550* ²	10	1/1	
NDL7565P/P1	600	-20 to +60	-40 to +85	20	400	11	1310* ²	10	1/1	
NDL7580P	1200* ²	-20 to +65	-40 to +85	30	1000* ²	100* ²	1625	15	2/2	with TEC

*1: RMS (-20 dB)

*2: Pulse conditions; pulse width = 10 μs, duty = 1% (modules)
pulse width = 1 μs, duty = 1% (ø5.6 can)

*3: MIN.

Fiber Optic Communication/Light Beam Application Devices

Detectors

■ PIN Photo Diodes

Part number	Absolute maximum ratings				Detecting area size (μm)	Typical characteristics								Package	Remarks
	I _F (mA)	I _R (mA)	T _C (°C)	T _{stg} (°C)		I _D (nA)		C _t (pF)		S (A/W)		f _c (GHz)			
						V _R (V)	TYP.	V _R (V)	TYP.	λ (nm)	TYP.	MIN.			
NDL5471RC/RD	10	0.5	−40 to +85	−40 to +85	ø120	5	0.1	5	1.1	1300	0.89	1.5	Receptacle package	RC: FC type receptacle module RD: SC type receptacle module	
										1550	1.00				
NDL5461P/P1/P2	10	−	−40 to +85	−40 to +85	ø80	5	0.1	5	1.0	1300	0.89	2.5	Coaxial module (With MMF)	P: Without flange P1: With flat mount flange P2: With vertical flange	
										1550	0.94				
NDL5481P/P1/P2	10	−	−40 to +85	−40 to +85	ø80	10	0.1	10	0.7	1300	0.85	2.5	Coaxial module (With SMF)	for analog applications P: Without flange P1: With flat mount flange P2: With vertical flange	
										1550	0.94				
NDL5421P/P1/P2	10	0.5	−40 to +85	−40 to +85	ø50	5	0.1	5	0.7	1300	0.89	2.5	Coaxial module (With MMF)	P: Without flange P1: With flat mount flange P2: With vertical flange	
										1550	0.94				
NDL5422P	−	0.5	−40 to +70	−40 to +85	ø50	5	0.1	−	−	−	−	2.5	BFY Package (6-pin) (With MMF)	With Pre-AMP P̄ = −23 dBm typ. 2.5 Gb/s	

Fiber Optic Communication/Light Beam Application Devices

Detectors

■ Avalanche Photo Diodes

Type	Part number	Absolute maximum ratings				Detecting area size (μm)	Typical characteristics								Package	Remarks	
		I _F (mA)	I _R (mA)	T _C (°C)	T _{stg} (°C)		V _{(BR)R} (V)	I _D (nA)		S (A/W)		M	f _c (GHz)	t _r / t _f (ns)			
								TYP.	V _R (V)	TYP.	λ (nm)			TYP.			TYP.
InGaAs-APD	NDL5510	10	0.5	-40 to +70	-55 to +100	ø80	75	V _{(BR)R} ×0.9	8	1300 0.89 1550 1.00	40	0.7	-	CAN Package			
	NDL5510C	10	0.5	-40 to +70	-55 to +100	ø80	75	V _{(BR)R} ×0.9	8	1300 0.89 1550 1.00	40	0.7	-	Chip on carrier			
	NDL5500	10	0.5	-40 to +70	-55 to +100	ø50	70	V _{(BR)R} ×0.9	5	1300 0.89 1550 1.00	40	1.0	-	CAN Package			
	NDL5500C	10	0.5	-40 to +70	-55 to +100	ø50	70	V _{(BR)R} ×0.9	5	1300 0.89 1550 1.00	40	1.0	-	Chip on carrier			
	NDL5520C	10	0.5	-40 to +70	-55 to +100	ø50	55	V _{(BR)R} ×0.9	5	1300 0.89 1550 1.00	40	2.5	-	Chip on carrier	for 2.5 Gb/s (ø50)		
	NDL5530	10	0.5	-40 to +85	-55 to +100	ø30	70	V _{(BR)R} ×0.9	5	1300 0.94 1550 0.96	40	2.5	-	CAN Package			
	NDL5530C	10	0.5	-40 to +85	-55 to +100	ø30	70	V _{(BR)R} ×0.9	5	1300 0.94 1550 0.96	40	1.0	-	Chip on carrier			
	NDL5531P /P1/P2	10	0.5	-40 to +85	-40 to +85	ø30	70	V _{(BR)R} ×0.9	5	1300 0.94 1550 0.96	40	2.5	-	Coaxial Module	P: Without flange P1: With flat mount flange P2: With vertical flange		
	NDL5561P /P1/P2	10	0.5	-40 to +85	-40 to +85	ø80	75	V _{(BR)R} ×0.9	8	1300 0.94 1550 0.96	40	1.0	-	Coaxial Module (With MMF GI-62.5)	P: Without flange P1: With flat mount flange P2: With vertical flange		
	NDL5551P /P1/P2	10	0.5	-40 to +85	-40 to +85	ø50	70	V _{(BR)R} ×0.9	5	1300 0.94 1550 0.96	40	1.0	-	Coaxial module (With MMF)	P: Without flange P1: With flat mount flange P2: With vertical flange		
	NDL5521P /P1/P2	10	0.5	-40 to +85	-40 to +85	ø50	55	V _{(BR)R} ×0.9	5	1300 0.94 1550 0.96	40	2.5	-	Coaxial module (With MMF)	for 2.5 G Applications P: Without flange P1: With flat mount flange P2: With vertical flange		
	NDL5553P /P1/P2	10	0.5	-40 to +85	-40 to +85	ø50	70	M = 20 V _{(BR)R} ×0.9 I _C =1.1A@55°C	50	1300 0.89 1550 0.94	20*1	-	0.5*2	Coaxial module (With MMF)	for OTDR Applications P: Without flange P1: With flat mount flange P2: With vertical flange		
	NDL5516P	10	0.5	-20 to +55	-40 to +85	ø80	75	V _{(BR)R} ×0.9 I _C =1.1A@55°C	2	1300 0.89 1550 1.00	40	0.7	-	DIP module (With MMF GI-62.5)	for OTDR Applications With TEC ΔT ≥ 45K		
	NDL5506P /PS	10	0.5	-20 to +55	-40 to +85	ø50	70	V _{(BR)R} ×0.9 I _C =1.1A@55°C	2	1300 0.89 1550 1.00	40	1.0	-	DIP module	for OTDR Applications With TEC ΔT ≥ 45K P: With MMF, PS: With SMF		
	NDL5590P /P1/P2	-	0.5	-40 to +85	-40 to +85	ø50	70	V _{(BR)R} ×0.9	5	1300 0.94 1550 0.96	-	1.0	-	Coaxial module (With MMF)	With Pre-AMP P̄ = -36 dBm typ. 622 Mb/s P: Without flange P1: With flat mount flange P2: With vertical flange		
	NDL5592P /P1/P2	-	0.5	-40 to +85	-40 to +85	ø30	70	V _{(BR)R} ×0.9	5	1300 0.94 1550 0.96	-	2.5	-	Coaxial module (With SMF)	With Pre-AMP P̄ = -33 dBm typ. 2.488 Gb/s P: Without flange P1: With flat mount flange P2: With vertical flange		
	NDL5522P	-	0.5	-40 to +70	-40 to +85	ø50	55	V _{(BR)R} ×0.9	5	-	-	-	2.5	-	BFY Package (6-pin) (With MMF)	With Pre-AMP P̄ = -33 dBm typ. 2.5 Gb/s	

*1: MIN.

*2: MAX.

Photo Detectors

PIN Photo-diode

■ PIN photo-diode for remote control application

Part number	Features	Absolute maximum ratings (T _A = 25 °C)		Electrical characteristics (T _A = 25 °C)			Package (package No.)
		V _R (V)	P _C (mW)	Sensitivity (nA/lx) (V _R = 5 V)	I _D (nA) (V _R = 10 V)	t _r (ns) (R _L = 1 kΩ)	
PH302	Mold case	32	150	50 ^{*1} (6 (μA) ^{*2})	~ 30	50	P10
PH302C	Mold case Visible ray cut filter	32	150	32 ^{*1} (5 (μA) ^{*2})	~ 30	50	P10
PH310	Small mold case with lens Visible ray cut resin	32	150	32 ^{*1} (5 (μA) ^{*2})	~ 10	30	P13
PH320	Small mold case with lens Visible ray cut resin	32	150	4.3 (μA) ^{*2}	~ 10	30	P13

*1: Light source color temperature 2854K

*2: Sensitivity (@H = 0.1 mW/cm²) for infrared ray (λ_P = 940 nm)

Package (package appearance)

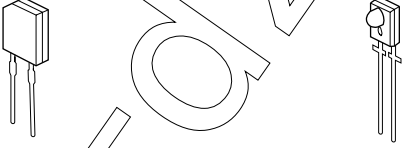
Package		
Package No.	P10	P13

Photo Detectors

Light Receiving IC

■ Photo-diode with built-in amplifier for Optical Storage (Custom device)

Part number	Absolute maximum ratings (T _A = 25 °C)				Light-electrical typical characteristics (T _A = 25 °C)						Remarks
	V _{CC} (V)	I _{CC} (mA)	P _D (mW)	T _{stg} (°C)	V _{CC} (V)	V _O		S		f _r (MHz)	
						Focus (mV)	Tracking (mV)	λ (nm)	(A/W)		
						TYP.	TYP.		TYP.	TYP.	
PH5xx★	9	–	100	–25 to +80	5	350	550	650		50	With internal amplifier

★: Under development

Photocoupler

■ General-purpose Tr. Photocoupler

Part number	Features	BV ₁₋₂	I _F (mA)	V _{CEO} (V)	CTR (%)	Package	Remarks
PS2501-1 to -4	High isolation voltage	5 kVr.m.s.	80	80	80 to 600	• 4- to 16-pin DIP (multi)	Single transistor output
PS2502-1 to -4				40	200 ~		Darlington transistor output
PS2503-1 to -4			50	40	100 to 400		Single transistor output
PS2505-1 to -4			±80	80	80 to 600		AC input Single transistor output
PS2506-1 to -4				40	200 ~		AC input Darlington transistor output
PS2521-1 to -4	High isolation voltage Large current input	5 kVr.m.s.	150	80	20 to 80	• 4-pin DIP	Single transistor
PS2525-1 to -4			±150				Darlington transistor
PS2532-1 to -4	High isolation voltage (VDE0884) (Option)	5 kVr.m.s. (3.75 kVr.m.s.)	80	300	1500 to 6500	• 4- to 16-pin DIP (multi)	Darlington transistor
PS2533-1 to -4				350	1500 to 6500		Single transistor
PS2561-1 to -2				80	80 to 400		Darlington transistor
PS2562-1 to -2					200 ~		Single transistor
PS2565-1 to -2					80 to 400		Darlington transistor
PS2566-1 to -2					200 ~		Single transistor
PS2581L1/L2	High isolation voltage Long creepage type (8 mm) (VDE0884) (Standard)	5 kVr.m.s.	80	80	80 to 400	• 4-pin DIP	Single transistor
PS2601	High isolation voltage	5 kVr.m.s.	80	80	80 to 600	• 6-pin DIP	Single transistor With base
PS2602				80	80 to 600		Single transistor Without base
PS2603				40	200 ~		Darlington transistor With base
PS2604				40	200 ~		Darlington transistor Without base
PS2605			±80	80	80 to 600		AC input Single transistor With base
PS2606				80	80 to 600		AC input Single transistor Without base
PS2607				40	200 ~		AC input Darlington transistor With base
PS2608				40	200 ~		AC input Darlington transistor Without base
PS2621	High isolation voltage Large current input	5 kVr.m.s.	150	80	20 to 50	• 6-pin DIP	Single transistor With base
PS2622			150				Single transistor Without base
PS2625			±150				AC input Single transistor With base
PS2626			±150				AC input Single transistor Without base
PS2633	High isolation voltage High V _{CEO}	5 kVr.m.s.	80	300	1000 to 15000	• 6-pin DIP (lead forming)	Darlington transistor With base
PS2634				300	1000 to 15000		Darlington transistor Without base
PS2651	High isolation voltage (VDE0884) (Option)	5 kVr.m.s.	80	80	50 to 400	• 6-pin DIP (lead forming)	Single transistor With base
PS2652				80	50 to 400		Single transistor Without base
PS2653				40	200 ~		Darlington transistor With base
PS2654				40	200 ~		Darlington transistor Without base

Photocoupler

■ SOP Photocoupler

Part number	Features	BV ₁₋₂	I _F (mA)	V _{CEO} (V)	CTR (%)	Package	Remarks
PS2701-1,-2,-4	High isolation voltage	3.75 kVr.m.s.	50	40	50 to 300	• SOP (2.54 mm pitch)	Single transistor
PS2702-1,-2,-4					200 ~		Darlington transistor
PS2703-1,-2,-4				120	50 to 400		Single transistor
PS2705-1,-2,-4			±50	40	50 to 300		AC input, Single transistor
PS2706-1,-2,-4					200 ~		AC input, Darlington transistor
PS2707-1,-2,-4				120	50 to 400		AC input, Single transistor
PS2732-1,-2,-4	High isolation voltage High V _{CEO} (VDE0884) Option	2.5 kVr.m.s.	50	300	1500 to 6500	Darlington transistor	
PS2733-1,-2,-4				350			
PS2801-1	High isolation voltage		50	80	80 to 600	Single transistor	
PS2802-1				40	200 ~	Darlington transistor	
PS2805-1			±50	80	80 to 600	AC input, Single transistor	
PS2806-1				40	200 ~	AC input, Darlington transistor	
PS2801-4			50	80	80 to 600	Single transistor	
PS2802-4				40	200 ~	Darlington transistor	
PS2805-4			±50	80	80 to 600	AC input, Single transistor	
PS2806-4				40	200 ~	AC input, Darlington transistor	
PS2832-1 [★]	High V _{CEO}		50	200	400 ~	Darlington transistor	

★: Under development

Photocoupler

■ High Speed Photocoupler

Part number	Features	BV ₁₋₂	I _F (mA)	V _{CC} (V)	CTR (%)	Package	Remarks
PS8701	High speed 1 Mbps High CMR 10 kV/ μ s	2.5 kVr.m.s.	25	35	15 ~	• 5-pin SOP	Photodiode + transistor
PS8601	High speed 1 Mbps (VDE0884 Option)	5 kVr.m.s.			15 ~	• 8-pin DIP	Photodiode + transistor with base
PS8602							Photodiode + transistor

Photocoupler**■ Analog Linear Photocoupler**

Part number	Features	BV ₁₋₂	I _F (mA)	V _R (V)	$\Delta K3$ (%)	Package	Remarks
PS8741 [★]	High linearity	1.5 kVr.m.s.	50	20	~ 1	• 16-pin SOP	for optical DAA

[★]: Under development

Photocoupler

■ High Speed Photocoupler

Part number	Features	BV ₁₋₂	I _F (mA)	V _{CC} (V)	t _{PHL} , t _{PLH} (ns)	Package	Remarks		
PS9601	High speed 10 Mbps (IC output)	5 kVr.m.s.	30	7	50 (TYP.)	• 8-pin DIP	 CMR/10 kV/μs		
PS9701	High speed 10 Mbps (IC output) (VDE0884) Option)	2.5 kVr.m.s.			50 (TYP.)	• 5-pin SOP			
PS9611 [★]	High CMR					• 8-pin DIP			
PS9711 [★]	High speed 10 Mbps					• 5-pin SOP			

★: Under development

Photocoupler**■ Inverter Control Photocoupler**

Part number	Features	BV1-2	I _F (mA)	V _{CC} (V)	I _{O2} (A)	Package	Remarks
PS9634	High output, high noise immunity (VDE0884) (Option)	5 kVr.m.s.	30	18	0.8	• 8-pin DIP	Built-in amplifier

OCMOS FET™

■ OCMOS FET

Part number	Features	V _{I-o} (V)	V _L (V)	I _L (mA)	R _{on} (Ω)	Package	Remarks
PS7112-1A	General use	1500	100	200	6	6-pin DIP (1-ch)	1b output
PS7113-1A			100	350	2.5		
PS7122-1A			200	200	5		
PS7122A-1A			250	200	8		
PS7122A-1B			250	200	8		
PS7141-1A			400	150	30		
PS7141-1B			400	150	30	8-pin DIP (2-ch)	1b output
PS7142-1A			400	150	10		
PS7160-1A			600	90	50		
PS7111-2A			100	100	6		
PS7113-2A			100	350	2.5		
PS7122-2A			200	200	5		
PS7122A-2A			250	200	8		
PS7122A-2B			250	200	8		1b + 1b output
PS7122A-1C			250	200	8		1a + 1b output
PS7141-2A			400	150	30		
PS7141-2B			400	150	30		1b + 1b output
PS7141-1C			400	150	30		1a + 1b output
PS7142-2A			400	200	12		1a + 1a output
PS7160-2A			600	90	50		
PS7200A-1A			40	100	12	4-pin SOP (1-ch)	Low capacitance 2.9 pF
PS7200B-1A			40	250	1.5		Low on-state resistance
PS7241-1A			400	120	35		
PS7241-1B			400	120	35		1b output
PS7211-2A			100	100	6	8-pin SOP (2-ch)	
PS7221-2A			200	120	8		
PS7241-2A	400	120	30				
PS7241-2B	400	120	30	1b + 1b output			
PS7241-1C	400	120	30	1a + 1b output			
PS7341-1A	High isolation voltage	3750	400	150	30	6-pin DIP (1-ch)	
PS7342-1A			400	200	10		
PS7360-1A			600	90	50		
PS7341C-1A			400	150	35		
PS7342C-1A			400	200	20		
PS7522-1A	Slow speed	1500	200	200	5	6-pin DIP	
PS7522-2A			200	200	5	8-pin DIP	
PS7241-AT1	Multi function	1500	200	120	30	8-pin SOP (2-ch)	OCMOS FET + photocoupler
PS7241-AT5			200	120	30		
PS7841-A15★					400	120	30

★: Under development

[POF Link](#)

■ POF Link

Part number	Absolute maximum rating (Tc = 25 °C)		Electrical characteristics (Tc = 25 °C)		
	Vcc (V)	Tc (°C)	Transmission speed (bps)	Transmission distance (m)	
				@SI-POF	@SI-HPCF
NL2100	0 to 6	0 to 70	156	50	100

Infra-Red Link Unit

■ Infra-Red Link Unit (Conform to IrDA Ver. 1.1/1.0)

Part number	Absolute maximum rating (T _A = 25 °C)		Electrical characteristics (T _A = 25 °C)			Remarks
	V _{CC} (V)	T _{opt} (°C)	Data rate (bps)	Transmission distance (m)	Viewing angle (deg.)	
NL1100	5	0 to +70	2.4 k to 4 M	~ 1.0	30	IrDA 1.1
NL1000*	3	0 to +70	2.4 k to 115.2 k	~ 1.0	30	IrDA 1.0

*: Under development