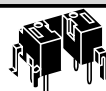

Characteristics List

- Photocoupler
- Hologram Unit

Photocoupler

■ Photointerrupter

Part No.	Absolute Maximum Ratings		Electro • Optical Characteristics T _a = 25°C					Package		Outline view	
	I _F (mA)	V _{CEO} (V)	I _F (mA)	I _C min. (mA)	I _{CEO} max. (μA)	t _r , t _f typ. (μs)	V _{CE(sat)} max. (mA)				
CNA1006N	50	30	20	0.7	0.2	5	0.4	Lateral with hook	O 62		
CNA1007H				0.5				Lateral slit type with BOSS	O 63		
CNA1009H (ON1024)								Medium size High resolution	O 52		
CNA1011K (ON1113)				0.3		6	0.5	With a mounting hole High resolution	O 59		
CNA1012K (ON1114)				0.7			0.3	Thin type High resolution	O 60		
CNA1014H (ON1387)				1.5		5	0.4	Medium size High resolution	O 64		
CNA1301H		35	5	0.1	0.1	Ultra small size through the board		O 47			
CNA1302K (ON1004)				0.04		Small size High resolution		O 45			
CNA1303K (ON1003)				0.1				O 44			
CNA1311K				0.05		50		Ultra small size (1.0 mm gap)	O 48		
CNA1312K				0.04				Ultra small size (2.0 mm gap)	O 49		
CNZ1002 (ON1002)			1.5	0.065		35		Small size High resolution	O 43		
CNZ1021 (ON1021)		30	20	0.5	0.2	5		Medium size High resolution	O 50		
CNZ1023 (ON1023)									O 51		
CNZ1102 (ON1102)				2		4		With a mounting hole High output, for general purpose	O 53		
CNZ1105 (ON1105)				0.3		6	0.3	With a mounting hole Disturbance light opreventive type high resolution	O 55		
CNZ1108 (ON1108)				2			0.4	Small size High output	O 54		

Note) Part numbers show the Matsushita unified part numbers. And the part numbers in parentheses show the conventional ones.

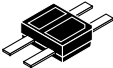
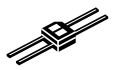
■ Photointerrupter (continued)

Part No.	Absolute Maximum Ratings		Electro • Optical Characteristics $T_a = 25^\circ\text{C}$					Package	No.	Outline view
	I_F (mA)	V_{CEO} (V)	I_F (mA)	I_C min. (mA)	I_{CEO} max. (μA)	t_r, t_f typ. (μs)	$V_{CE(sat)}$ max. (mA)			
CNZ1109 (ON1109)	50	30	20	0.3	0.2	6	0.3	With a mounting hole Deep and wide gap (W = 5 mm) high resolution	O 56	
CNZ1110 (ON1110)								Small size High resolution	O 57	
CNZ1111 (ON1111)								Thin type High resolution	O 58	
CNZ1112 (ON1112)									O 60	
CNZ1120 (ON1120)	25	20	5	1.0	0.6	100	0.4	Wide gap (10 mm) (Dustproof type)	O 61	
CNZ1215 *1,2 (ON1215)								Disturbance light preventive type High resolution	O 55	

Note) *1: Visible LED is used on the emission side.

*2: Photodarlington transistor output.

■ Reflective Photosensor

Part No.	Absolute Maximum Ratings		Electro • Optical Characteristics $T_a = 25^\circ\text{C}$						Package	No.	Outline view
	I_F (mA)	V_{CEO} (V)	d (mm)	I_F (mA)	I_C min. (mA)	I_{CEO} max. (μA)	t_r, t_f typ. (μs)	$V_{CE(sat)}$ max. (mA)			
CNB1001 *1	50	35	1	4	0.023	0.1	30/40	0.4	SMD, Small size, Thin type (Visible light cut)	O 65	
CNB1002 *1											
CNB1009 (ON2173)	30	20	5	20	0.1	0.2	6	0.3	Small size, High resolution	O 72	
CNB1011 *1		35	1	4	0.04	100	40/50	0.4	SMD, Super small, Thin type (Visible light cut)	O 68	
CNB1301 (ON2171)		30	4	10	0.8	0.2	20	0.5	Small size, (Visible light cut) Merits' collection point type	O 66	
CNB1302 (ON2170)			1		0.09			0.4	Small size, Thin type (Visible light cut)	O 67	

Note) *1: SMD (Surface Mount Devices)

Note) Part numbers show the Matsushita unified part numbers. And the part numbers in parentheses show the conventional ones.

Photo coupler

■ Reflective Photosensor (continued)

Part No.	Absolute Maximum Ratings		Electro • Optical Characteristics $T_a = 25^\circ\text{C}$						Package	No.	Outline view
	I_F (mA)	V_{CEO} (V)	d (mm)	I_F (mA)	I_C min. (mA)	I_{CEO} max. (μA)	t_r, t_f typ. (μs)	$V_{CE(sat)}$ max. (mA)			
CNB1303 (ON2180)		30	1	10	0.09	0.2	20	0.4	Small size, Visible light cut CNB1302 Reverse polarity	O 67	
CNB1304H (ON2175)			Prism is used	20	0.03		6	0.5	Small size (Position control with pin)	O 74	
CNB2001 *1, 2		35	1	4	0.52	1.0	120/115	1.2	SMD, Visible light cut Darlington output	O 65	
CNB2003 *1, 2						10				O 69	
CNB2301 *2 (ON2270)	100	20	5	2	0.46	1.0	150	1.5	Small size, Thin type (Visible light cut)	O 67	
CNZ2152 (ON2152)				20	0.8	2	8	0.6	Small size, Quick response high sensitivity	O 70	
CNZ2153 (ON2153)		30	3		0.1	0.2	6	0.5	Small size, Quick response	O 71	
CNZ2179 (ON2179)		20	5		0.18		20		Small size, (Visible light cut)	O 73	
CNZ2253 *2 (ON2253)			3	10	3	0.5	150	1.5	Small size, Darlington output	O 71	

Note) *1: SMD (Surface Mount Devices)
*2: Photodarlington transistor output.

■ Integrated TTL Output Type of Photosensor

Part No.	Electro • Optical Characteristics $T_a = 25^\circ\text{C}$					Package	No.	Outline view
	Condition for Output On	V_{CEO} (V)	V_{OH} max. (V)	V_{OL} max. (V)	I_{Fth} max. (mA)			
CNA4302A	Projection ON	2.2 ~ 7	12	0.4	2	Gap width 1.2 mm Low voltage driving	O 46	

Note) Part numbers show the Matsushita unified part numbers. And the part numbers in parentheses show the conventional ones.

■ Photocoupler (Phototransistor Output)

Part No.	Absolute Maximum Ratings		Electro • Optical Characteristics T _a = 25°C						Package	No.	Outline view
	I _F (mA)	V _{CEO} (V)	V _{ISO} min. (V _{RMS})	min. (%)	max. (%)	I _{CEO} max. (μA)	t _r · t _f typ. (μs)	V _{CEO(sat)} typ. (V)			
CNC1S101 (ON3131)	50	80	5 000	100	600	0.1	2/3	0.1	Small size High breakdown voltage, High transfer efficiency	O 38	
CNC1S171 (ON3171)		50		Small size (authorized by VDE) High breakdown voltage, High transfer efficiency					O 39		
CNC2S501 *1 (ON3731A)		350		1 000	4 000 typ.	0.2	40/15	1.0 max.	Small size High breakdown voltage, High CTR	O 38	
CNC7S101 (ON3181)	±50	20		300	0.1	2/3	0.1	Small size, AC input High transfer efficiency, High breakdown voltage,	O 40		
CNZ3132 (ON3132)	50	80		100				600	Small size (double) High breakdown voltage, High transfer efficiency	O 41	
CNZ3133 (ON3133)									Small size (triple) High breakdown voltage, High transfer efficiency	O 42	
CNZ3134 (ON3134)									Small size (tetra) High breakdown voltage, High transfer efficiency	O 38	
CNZ3731 *1 (ON3731)		300			1 000	4 000 typ.	0.2	40/15	1.0 max.	Small size High breakdown voltage	

Note) *1: Photodarlington transistor output

Note) Part numbers show the Matsushita unified part numbers. And the part numbers in parentheses show the conventional ones.