SUPER INTENSITY VISIBLE LED/INFRARED LED/PHOTO DETECTOR

T-41-21

Stanley super-intensity visible and infrared LEDs (660 nm to 925 nm) are suitable for optical communication, bar-code reader and sensor. The packages of the □□-311, -511 and -1011 series used for light sourcing and reception can be easily combied with lenses since the position determination accuracy is very high.

▼SUPER INTENSITY VISIBLE LED

Ta=25°C

Type No	Wavelength		Absolute Maximun Ratings						Electro-Optical Characteristics									fig.
	Peak TYP.	Spectral Line Half width TYP.	Power Dissipation	Forward Current	Peak Forward Current	Reverse Voltage	Operating Temperature	Storage Temperature	Radiant Intensity Ie			Forward Voltage VF			Reverse Current IR		Cut-Off Frequency Fc	
	λp	Δλ	Pd	IF	IFM	VR	Topr	Tstg	MIN.	TYP.	IF	TYP.	MAX.	IF	MAX.	VR	TYP.	
FH1011	660	30	140	70	300	4	−30~+85	−30~+100	0.6	—	30	2.0	2.5	30	100	4	7	1
FH511	660	30	140	70	300	4	−30~+85	−30~+100	0.3	0.6	30	1.75	2.0	30	100	4	7	1
KR311	660	25	140	70	300	4	−30~+85	−30~+100	1.0	1.7	50	2.1	2.5	50	100	4	7	2
H1000-N	660	25	125	50	300	4	−30~+85	−30~+100	10	15	20	2.0	2.5	20	100	4	—	3
KR5704X-N	660	25	125	50	300	4	−30~+85	−30~+100	8	16	20	2.0	2.5	20	100	4	—	4
KR5505S-N	660	25	125	50	300	4	−30~+85	−30~+100	4	8	20	2.0	2.5	20	100	4	—	5
KR4505S-N	660	25	125	50	300	4	−30~+85	−30~+100	2	4	20	2.0	2.5	20	100	4	—	6
BR102-N	660	30	140	70	300	4	−30~+100	−30~+125	1.5	3	20	1.7	2.0	20	100	4	—	7
BR105-N	660	30	140	30	300	4	−30~+100	−30~+125	0.6	1.2	20	1.7	2.0	20	100	4	—	
Units	nm		mW	mA		V	°C		mW/sr		mA	V		mA	μA	V	MHz	

Stanley has the special connector for 511 type(fig-8)

▼INFRARED LED FOR OPTICAL COMMUNICATIONS USE

Ta=25°C

Type No.	Wavelenght		Absolute Maximum Ratings						Electro-Optical Characteristics									fig.
	Peak TYP.	Spectral Line Half width TYP	Power Dissipation	Forward Current	Peak Forward Current	Reverse Voltage	Operating Temperature	Storage Temperature	Radiant Intensity Ie		Forward Voltage VF			Reverse Current IR		Capacitance	Cut-Off Frequency Fc	
	λp	Δλ	Pd	IF	IFM	VR	Topr	Tstg	TYP.	IF	TYP.	MAX.	IF	MAX.	VR	Co	TYP.	
BN511	925	50	150	100	1,000	4	−30~+85	−30~+100	0.8	20	1.2	1.5	20	10	4	90	1.80	1
CN511	880	65	150	100	1,000	5			6.0	50	1.45	1.8	50	10	5	20	0.65	1
DN511	850	40	150	100	1,000	5			9.0	50	1.55	2.0	50	100	5	65	30	2
DN311	850	40	150	100	1,000	5			3.5	50	1.55	2.0	50	100	5	65	30	
Units	nm		mW	mA		V	°C		mW/sr	mA	V		mA	μA	V	pF	MHz	

Stanley has the special connector for 511 type(fig-8)

▼PHOTO DETECTOR

Ta=25°C

Type No.	Peak Sensitivity Wavelength	Absolute Maximum Ratings						Electro-Optical Characteristics												fig.
	λp	Collector Dissipation	Voltage between Collector and Emitter	Voltage between Emitter and Collector	Collector Current	Operating Temperature	Storage Temperature	Photo Current Ic			Response Time					Dark Current ICEO		Collector Saturation Voltage VCE(sat)		
	TYP.	Pc.	VCEO	VCEO	Ic	Topr	Tstg	TYP.	VCE	Ee※	Tr	Tf	VCE	Ic	RL	MAX.	VCEO	TYP.	Ic	
PS511	800	100	30	5	30	−30~+85	−30~+100	2.5	5	10	5	5	10	2	100	0.2	10	0.1	0.5	1
PD511	800	100	20	5	30			5	5	0.1	400	400	10	2	100	1	10	0.7	2	
Units	nm	mW	V	V	mA	°C		mA	V	mw/cm²	μsec		V	mA	Ω	μA	V	V	mA	

Stanley has the special connector for 511 type(fig-8)

※A standard tungsten filametent lamp with 2,856K is used for the color temperature.

▼PACKAGE DIMENSIONS Unit:mm

fig.1

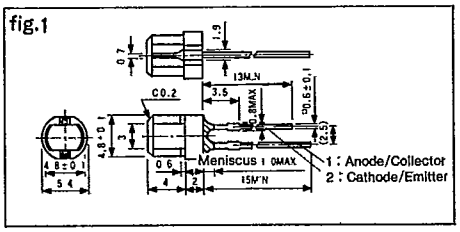

fig.2

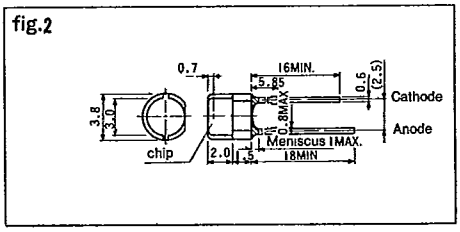

fig.3

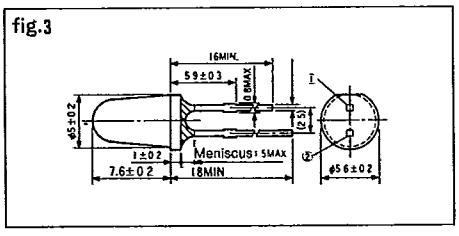

fig.4

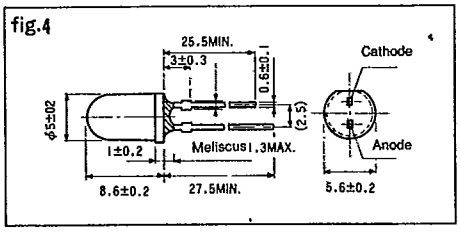

fig.5

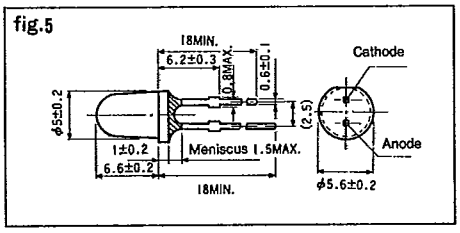

fig.6

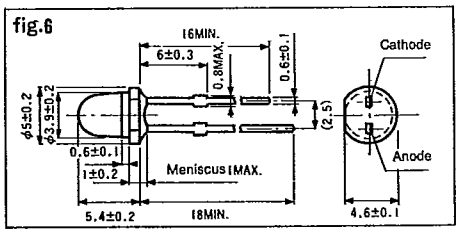

fig.7

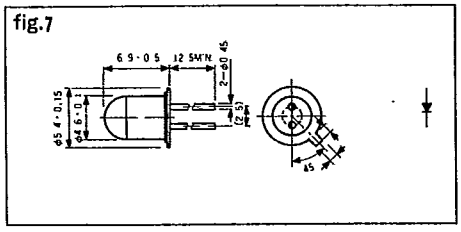
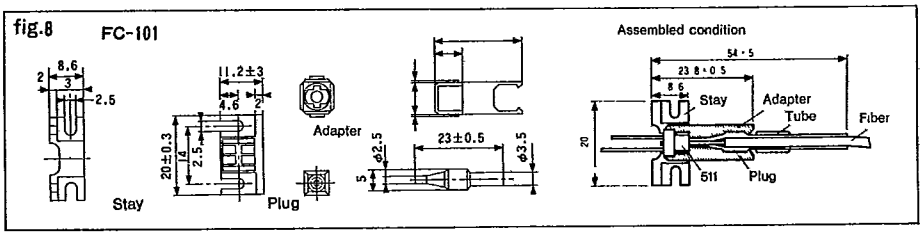
fig.8 FC-101