



TECHNICAL DATA SHEET

CSG-DP01, CSG-DP02 CSG-DP03, CSG-23FL

T-41-73

THE CSG-DP01, DP02, DP03, AND 23FL PHOTOINTERRUPTERS COMBINE A HIGH OUTPUT GaAs IRED WITH A HIGH-SENSITIVITY PHOTOTRANSISTOR.

FEATURES

- 0.5MM APERTURE
- HIGH-SPEED RESPONSE
- EASY TO MOUNT ON P.C.B.
- DUSTPROOF

APPLICATIONS

- TAPE-END SENSORS
- TIMING SENSORS
- EDGE SENSORS
- COPIERS

MAXIMUM RATINGS

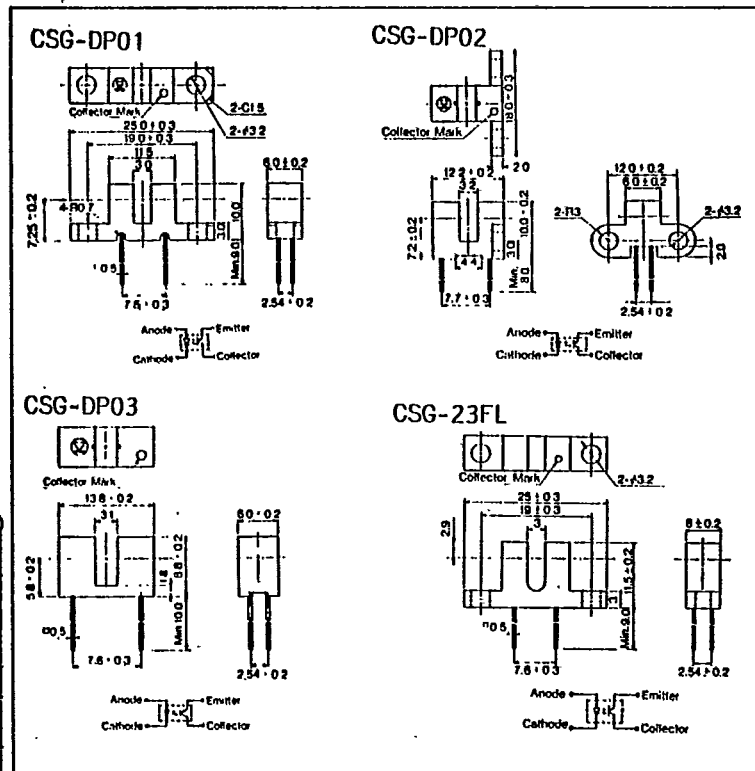
($T_A=25^{\circ}\text{C}$)

ITEM		SYMBOL	RATING	UNIT
LED	POWER DISSIPATION	Pd	100	mW
	REVERSE VOLTAGE	Vr	5	V
	FORWARD CURRENT	If	60	mA
	PULSE FORWARD CURRENT *1	Ifp	1	A
PHOTO-DARLINGTON	COLLECTOR POWER DISSIPATION	Pc	100	mW
	COLLECTOR CURRENT	Ic	50	mA
	C-E VOLTAGE	VCE0	30	V
	E-C VOLTAGE	VECO	5	V
OPERATING TEMPERATURE		TOPR	-20~+85	°C
STORAGE TEMPERATURE		TSTG	-30~+85	°C
SOLDERING TEMPERATURE *2		Tsol	240	°C

*1 $\tau_w = 100 \mu\text{SEC}$, $T = 10 \text{ MSC}$.

*2 2MM, T=5 SEC.

DIMENSIONS (Unit: mm)



ELECTRO-OPTICAL CHARACTERISTICS

 $(T_A = 25^\circ\text{C})$

ITEM		SYMBOL	CONDITIONS	MIN.	TYPE	MAX.	UNIT
INPUT	FORWARD VOLTAGE	V_F	$I_F=30\text{mA}$		1.2	1.5	V
	REVERSE CURRENT	I_R	$V_R=5\text{V}$			10	μA
	CAPACITANCE	C_T	$V=0\text{V}, f=1\text{kHz}$		25		pF
	PEAK WAVELENGTH	λ_P			940		nm
OUTPUT	COLLECTOR DARK CURRENT	I_{CEO}	$V_{CE}=10\text{V}$			1	μA
LIGHT CURRENT		I_L	$V_{CE}=5\text{V}, I_F=5\text{mA}$	2			mA
C-E SATURATION VOLTAGE		$V_{CE(SAT)}$	$I_F=30\text{mA}, I_C=1\text{mA}$			1.5	V
SWITCHING SPEEDS	RISE TIME	t_R	$V_{CC}=10\text{V}$ $I_C=5\text{mA}$		65		$\mu\text{SEC.}$
	FALL TIME	t_F	$R_L=100\Omega$		75		$\mu\text{SEC.}$

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