GP1S092HCPI

Features

- 1. Subminiature, transmissive type (4.5×2.6×2.9mm)
- 2. Surface mount type
- 3. Wide gap (Gap width : 2mm)
- 4. Slit width (Detector side) : 0.3mm
- 5. Tape-packaged product

Applications

- 1. Cameras
- 2. CD-ROM drives
- 3. VCR

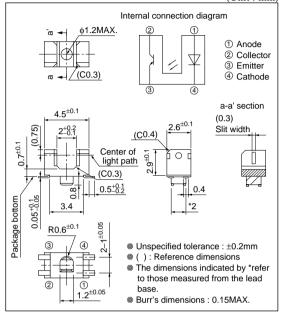
		Absolute Maximum Ratings (Ta=25°C)								
Parameter	Symbol	Rating	Unit							
Forward current	IF	50	mA							
Reverse voltage	VR	6	V							
Power dissipation	Р	75	mW							
Collector-emitter voltage	VCEO	35	V							
Emitter-collector voltage	VECO	6	V							
Collector current	Ic	20	mA							
Collector power dissipation	Pc	75	mW							
Total power dissipation	Ptot	100	mW							
Operating temperature	Topr	-25 to +85	°C							
Storage temperature		-40 to +100	°C							
*1 Soldering temperature		260	°C							
	Forward current Reverse voltage Power dissipation Collector-emitter voltage Emitter-collector voltage Collector current Collector power dissipation Total power dissipation Operating temperature Storage temperature	Forward current IF Reverse voltage VR Power dissipation P Collector-emitter voltage VCEO Emitter-collector voltage VECO Collector current Ic Collector power dissipation Pc Total power dissipation Ptot Operating temperature Topr Storage temperature Tstg 'Soldering temperature Tsol	$\begin{tabular}{ c c c c c c c } \hline Forward current & IF & 50 \\ \hline Reverse voltage & VR & 6 \\ \hline Power dissipation & P & 75 \\ \hline Collector-emitter voltage & V_{CEO} & 35 \\ \hline Emitter-collector voltage & V_{ECO} & 6 \\ \hline Collector current & IC & 20 \\ \hline Collector power dissipation & P_{cc} & 75 \\ \hline Total power dissipation & P_{tot} & 100 \\ \hline Operating temperature & T_{opr} & -25 to +85 \\ \hline Storage temperature & T_{sol} & 260 \\ \hline \end{tabular}$							

Abcolute Maximum Patin

Subminiature, Surface Mount Type Photointerrupter

Outline Dimensions

(Unit : mm)



*1 For MAX. 5s

■ Electro-optical Characteristics									
Parameter			Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Input	Forward voltage		$V_{\rm F}$	IF=20mA	-	1.2	1.4	V	
	Reverse current		Ir	V _R =3V	-	-	10	μA	
Output	Collector dark current		Iceo	VCE=20V	-	-	100	nA	
Transfer characte- ristics	Collector current		Ic	VCE=5V, IF=5mA	100	-	400	μA	
	Collector-emitter saturation voltage		VCE(sat)	IF=10mA, Ic=40µA	-	-	0.4	V	
	Response time	Rise time	tr	Vce=5V, Ic=100µA	-	50	150	μs	
		Fall time	tr	$R_L=1\ 000\Omega$	-	50	150	μs	

Fig.1 Forward Current vs. Ambient Temperature

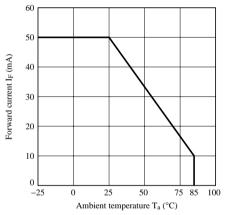


Fig.3 Forward Current vs. Forward Voltage

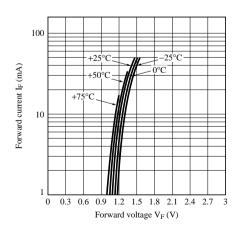


Fig.2 Power Dissipation vs. Ambient Temperature

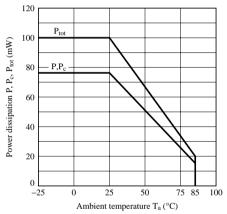


Fig.4 Collector Current vs. Forward Current

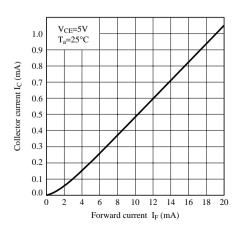


Fig.5 Collector Current vs. Collector-emitter Voltage

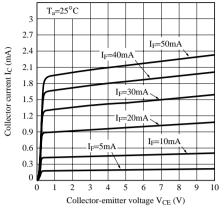


Fig.7 Collector - emitter Saturation Voltage vs. Ambient Temperature

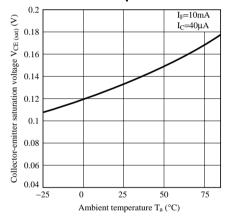


Fig.9 Response Time vs. Load Resistance

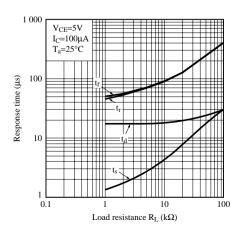


Fig.6 Relative Collector Current vs. Ambient Temperature

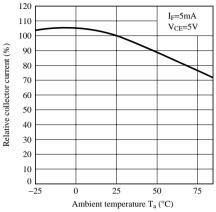


Fig.8 Collector Dark Current vs. Ambient Temperature

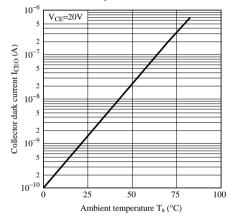


Fig.10 Test Circuit for Response Time

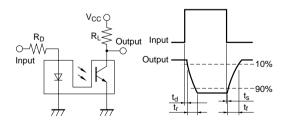


Fig.11 Relative Collector Current vs. Shield Distance (1)

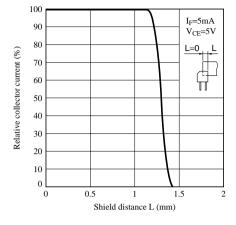
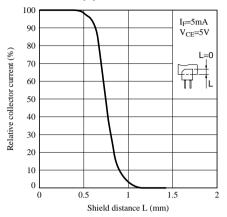


Fig.12 Relative Collector Current vs. Shield Distance (2)



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