



深圳市晶创和立科技有限公司

SHENZHEN JINGCHUANGHELI TECHNOLOGY CO., LTD.

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[Http://www.szichl.com](http://www.szichl.com)

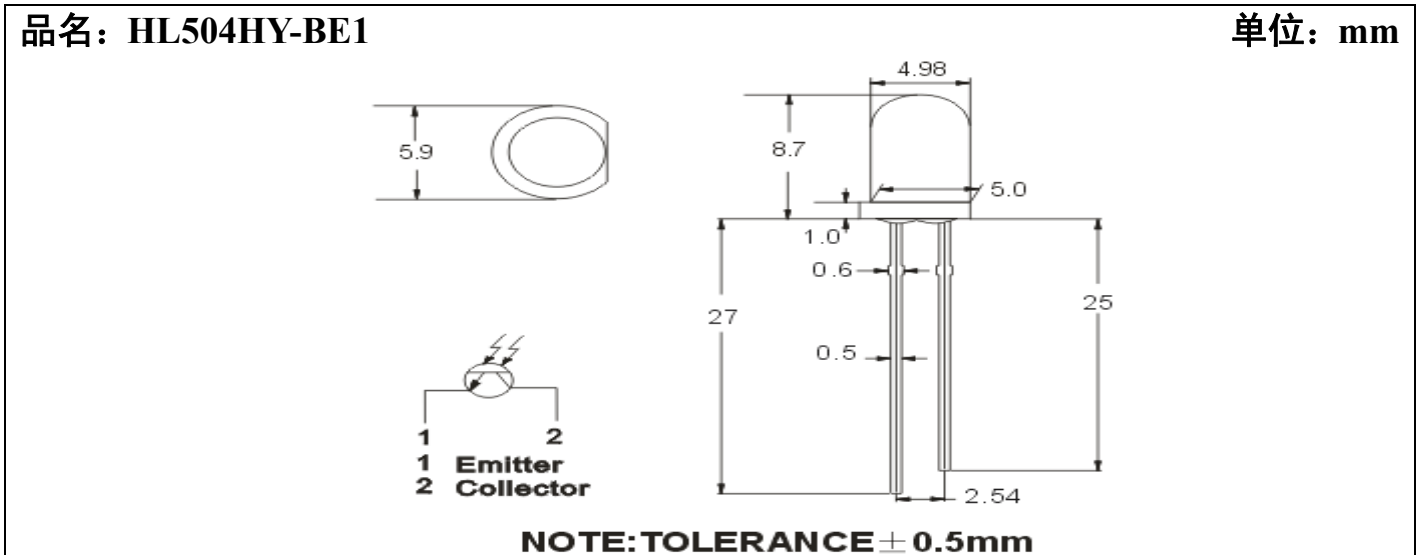
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Room 9CF013, Temple security building, Niulanqian Minzhi street, Longhua district Shenzhen P. R. C

光敏管 HL504HY 规格书



Parameter	Symbol	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Collector dark current	I_{CEO}			100	nA	$V_{CE}=20V$ $H=0mW/cm^2$
C-E Saturation Voltage	$V_{CE(Sat)}$			0.2	V	$I_C=2mA$ $I_B=100uA$
Current gain	h_{FE}	200		1800	uA	$V_{CE}=5V$ $I_C=2mA$
Rise Time(10%to90%)	t_r		15		uS	$V_{CE}=5V$ $I_C=1mA$ $R_L=100ohms$
Fail Time(90%to10%)	t_f		15			
Wavelength of Peak Sensitivity	λ_p		940		nm	
Range of Spectral Bandwidth	$\lambda_{0.5}$	400		1200	nm	
Collector-Emitter Breakdown Voltage	V_{CEO}	30			V	$I_C=100uA$ $I_B=0$
Emitter-Collector Breakdown Voltage	V_{ECO}	6.5				
Collector Current	I_C		20		mA	
C-Power dissipation	P_C		75		mW	
Collector-base Capacitance	C_{CB}	5.4	6.4	7.4	PF	$f=1MHZ$ $V_{CB}=3V$



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Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Power Dissipation at (or below) 25 °C Free Air Temperature	Pc	75	mW
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter-Collector Voltage	V _{ECO}	5	V
Collector Current	Ic	20	mA
Operating Temperature	Topr	-25~+85	°C
Storage Temperature	Tstg	-40~+85	°C
Soldering Temperature (1/16 inch from body for 5 seconds)	Tsol	260	°C

Electrical Optical Characteristics:

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector Dark Current	I _{CEO}			100	nA	I _e =0mW/cm ² V _{CE} =20V
On State Collector Current	I _{C(on)}	0.7	2.0			I _e =1mW/cm ² V _{CE} =5V
Emitter-Collector Breakdown Voltage	BV _{CEO}	30		100	V	I _C =100 μA I _e =0mW/cm ²
Collector - Emitter Breakdown Voltage	BV _{ECO}	6.5			V	I _C =100 μA I _e =0mW/cm ²
Collector-Emitter Saturation Voltage	V _{CE(sat)}			0.2	V	I _C =2mA I _e =1mW/cm ²
Current gain	h _{FE}	800		1800	μA	V _{CE} =5V I _e =2mW/cm ²
Wavelength of Peak Sensitivity	λ _p		940		nm	
Range of Spectral Bandwidth	λ _{0.5}	450		1100	nm	
Response Time	Rise Time	tr	15		μS	V _{CE} =5V I _e =1mA R _L =1000Ω
	Fall Time	tf	15		μS	
Collector-Capacitance	C _{CB}	5.4	6.4	7.4	PF	f=1MHz V _{CB} =3V



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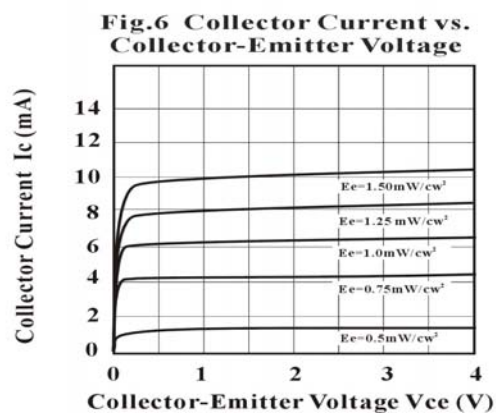
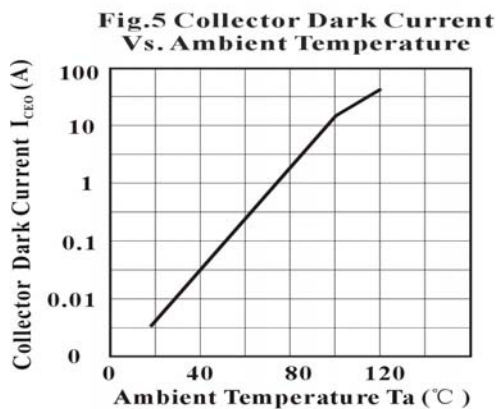
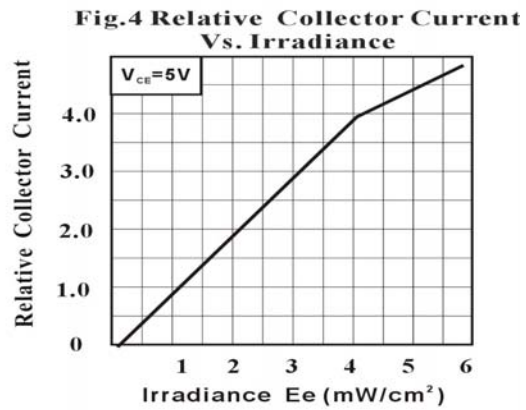
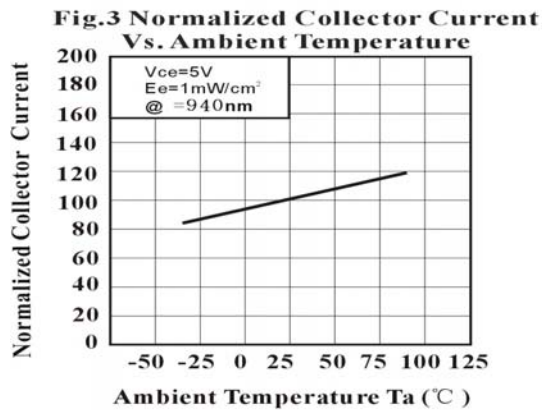
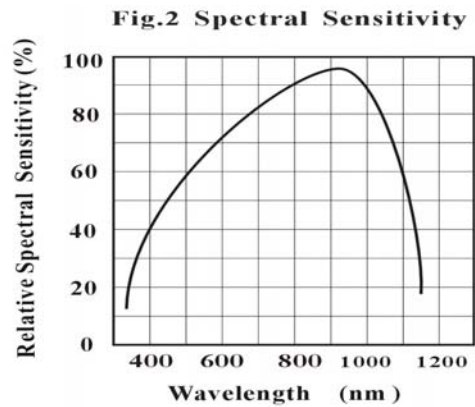
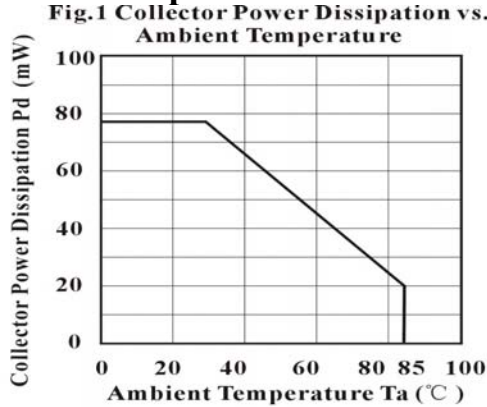
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Typical Electrical-Optical Characteristics Curves



- ABSOLUTE MAXIMUM RATINGS: ($T_a=25^\circ C$)
- OPERATING TEMPERATURE: $-25^\circ C$ TO $+85^\circ C$
- LEAD SOLDERING TEMPERATURE: $260^\circ C$ FOR 5 SECONDS