





Pb free product—RoHS compliant

Fast response time

High sensitivity

Invisible wavelength  $\lambda=940\text{nm}$

Integration structure

The four pins of the connector and the corresponding PCB pads are filled with silicone

Intelligent Sweeping Robot

Parameter		Symbol	Ratings	Unit
Input	Power Dissipation	$P_d$	170	mW
	Reverse Voltage	$V_R$	5	V
	Forward Current	$I_F$	100	mA
	Peak Forward Current <sup>*1</sup>	$I_{FP}$	250	mA
Output	Collector Power Dissipation	$P_c$	75	mW
	Collector Current	$I_C$	20	mA
	Collector-Emitter Voltage	$V_{CEO}$	30	V
	Emitter-Collector Voltage	$V_{ECO}$	5	V
Electrostatic Discharge (HBM)		ESD	4000	V
Operating Temperature Range		$T_{opr}$	-25 to + 65	
Storage Temperature Range		$T_{stg}$	-40 to + 85	

Note: 1. Pulse width 0.1msec, duty cycle 1/2

Input						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Peak Wavelength	$\lambda$	---	940	---	nm	$I_F=50\text{mA}$
Forward Voltage	$V_F$	---	1.35	1.60	V	$I_F=50\text{mA}$
Reverse Current	$I_R$	---	---	10	$\mu\text{A}$	$V_R=5\text{V}$

Output						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	30	---	---	V	$I_C=0.1\text{mA}$ $E_e=0\text{mW/cm}^2$
Emitter-Collector Breakdown Voltage	$BV_{ECO}$	5	---	---	V	$I_E=0.1\text{mA}$ $E_e=0\text{mW/cm}^2$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	---	---	0.4	V	$I_C=2\text{mA}$ $E_e=1.0\text{mW/cm}^2$
Rise Time	$T_r$	---	15	---	$\mu\text{s}$	$V_{CC}=5\text{V}$ $R_L=1\text{K}$ $I_C=1\text{mA}$
Fall Time	$T_f$	---	15	---	$\mu\text{s}$	
Collector Dark Current	$I_{CEO}$	---	---	100	nA	$V_{CE}=10\text{V}$ $E_e=0\text{mW/cm}^2$
On State Collector Current	$I_{C(ON)}$	1.0	5.0	---	mA	$V_{CE}=5\text{V}$ $I_F=20\text{mA}$

<b>LIGHT</b> 深圳莱特光电股份有限公司 Light Electronics CO., LTD.	
TYPE NO. : _____	 LOT NO. : _____
QUANTITY: _____	
BIN: _____	
DATE CODE: _____	
REMARKS: _____	


