

# I N F R A R E D P R O D U C T S



( Reflective Sensor )

REV:E  
DATE:2007/12/12

☰ **DEVICE NO:HRS-4C2D**

☰ **ABSOLUTE MAXIMUM RATINGS:**

T<sub>A</sub>=25°C

PARAMETER		SYMBOL	MAX. RATING	UNIT
Input	Continuous Forward Current	I <sub>F</sub>	50	mA
	Peak Forward Current *1	I <sub>FM</sub>	1	A
	Reverse Voltage	V <sub>R</sub>	5	V
	Power Dissipation	P <sub>d</sub>	75	mW
Output	Collector-Emitter Voltage	V <sub>CEO</sub>	30	V
	Emitter-Collector Voltage	V <sub>ECO</sub>	5	V
	Collector Current	I <sub>c</sub>	20	mA
	Power Dissipation	P <sub>d</sub>	100	mW
Operating Temperature		T <sub>opr</sub>	-25 ~ +85	°C
Storage Temperature		T <sub>stg</sub>	-40 ~ +100	°C
Dip Soldering Temperature (3mm from case Bottom 260 °C for 5 seconds)				

☰ **ELECTRIC-OPTICAL CHARACTERISTICS:**

T<sub>A</sub>=25°C

PARAMETER		SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Input	Forward Voltage *2	V <sub>F</sub>	I <sub>F</sub> =20mA	--	1.20	1.50	V
	Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	--	--	100	μA
	Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =20mA		940		nm
Output	Dark Current	I <sub>ceo</sub>	V <sub>ce</sub> =10V	--	--	200	nA
	C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =0.25mA I <sub>F</sub> =20mA	--	--	0.4	V
Light Current		I <sub>L</sub>	V <sub>ce</sub> =5V, I <sub>F</sub> =20mA	160	--	--	μA
Speed	Rise Time	T <sub>r</sub>	V <sub>ce</sub> =5V, I <sub>F</sub> =20mA	---	20	---	μsec
	Fall Time	T <sub>f</sub>	R <sub>L</sub> =1000Ω	--	20	---	μsec

\*1.Pulse Width=0.1ms.

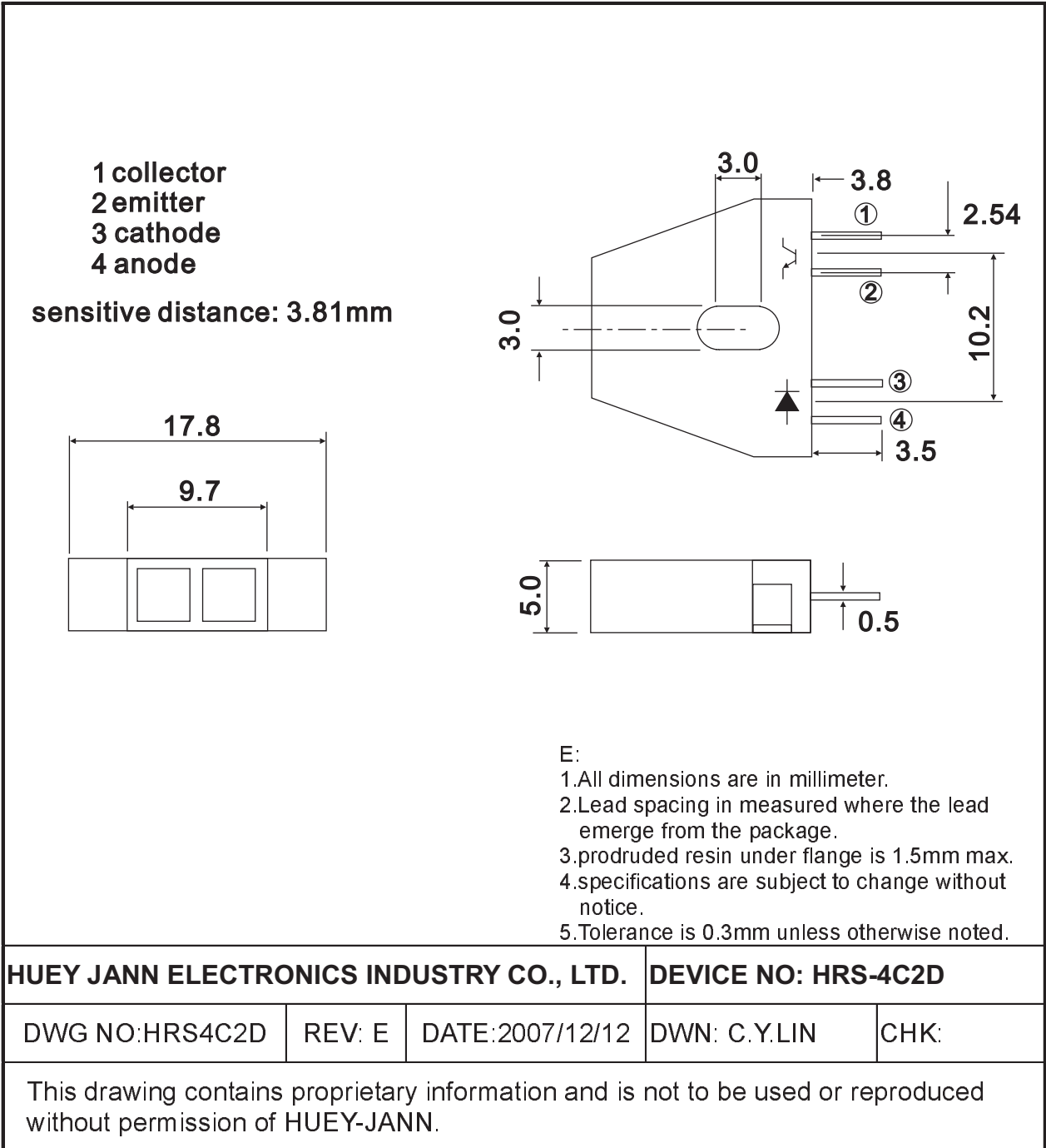
\*2.Tolerance:±15% HUEY-JANN' measuring equipment : PD-01.

**HUEY JANN ELECTRONICS INDUSTRY CO., LTD.**

# I N F R A R E D P R O D U C T S

( R e f l e c t i v e S e n s o r )

**PACKAGE DIMENSIONS:**



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