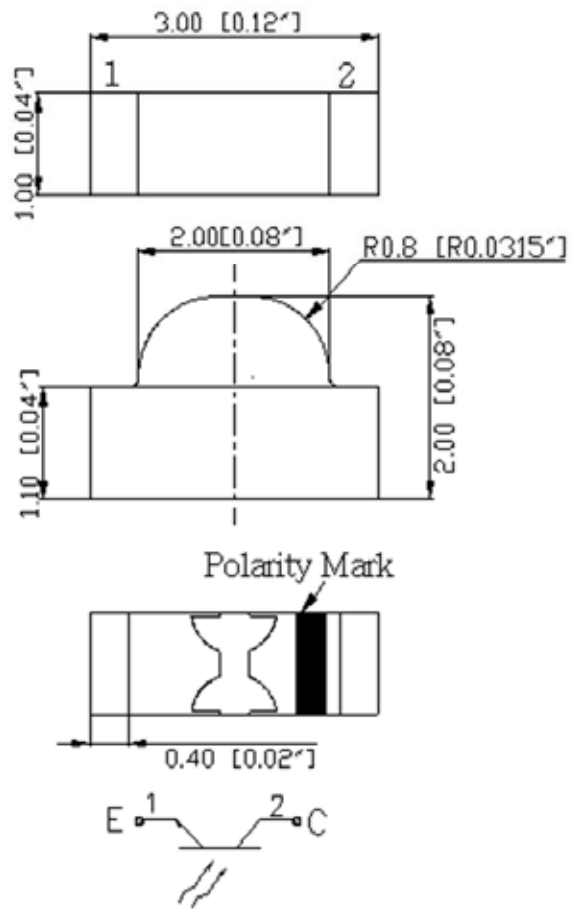
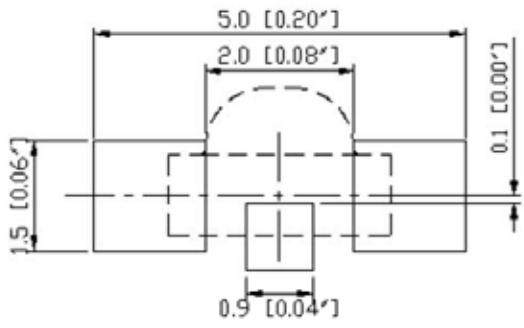


SPECIFICATION **CSR123PT2C**
PACKAGE OUTLINES

RECOMMENDED PAD LAYOUT


ITEM	MATERIALS
Resin (mold)	Epoxy
Lens color	Water Transparent
Dice	Silicon

- Notes:
1. All dimensions are in millimeters (inches).
 2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
 3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSR123PT2C	Silicon	Phototransistor	Water Clear	150°



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	P _D	100	mW
Emitter-Collector Breakdown Voltage	BV _{ECO}	5	V
Collector-Emitter Sustaining Voltage	V _{CE}	30	V
Operating Temperature Range	T _{OPR}	-40~+80	°C
Storage Temperature Range	T _{STG}	-40~+85	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 5sec			

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

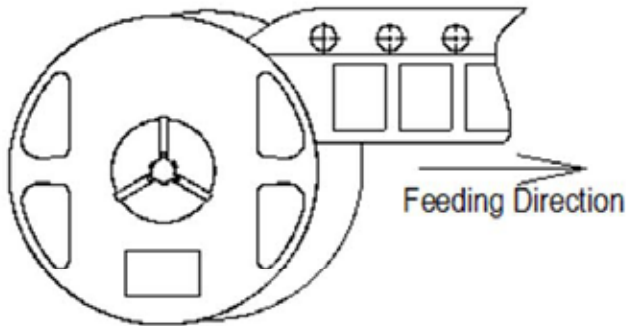
Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Collector-Emitter Breakdown Voltage	V _{BR(CEO)}	I _C = 100 μ A I _B =0	30	-	-	V
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C =2mA I _B =100 μ A	-	-	0.3	V
Emitter-Collector Breakdown Voltage	V _{BR(CEO)}	I _E =100 μ A I _B =0	5	-	-	V
Collector Dark Current	I _{CEO}	V _{CE} =20V	-	-	100	nA
On State Collector Current	I(ON)	V _{CE} =20V	1.0	2.0	-	mA

*Tolerance of viewing angle: -10 / +5 deg.

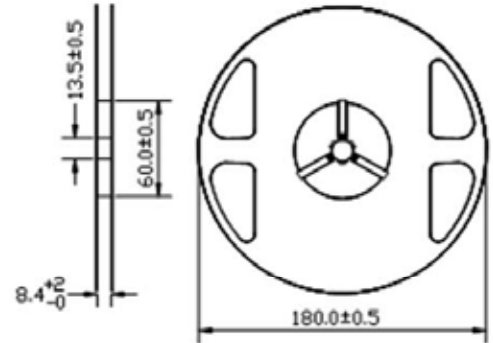

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PACKAGING SPECIFICATION

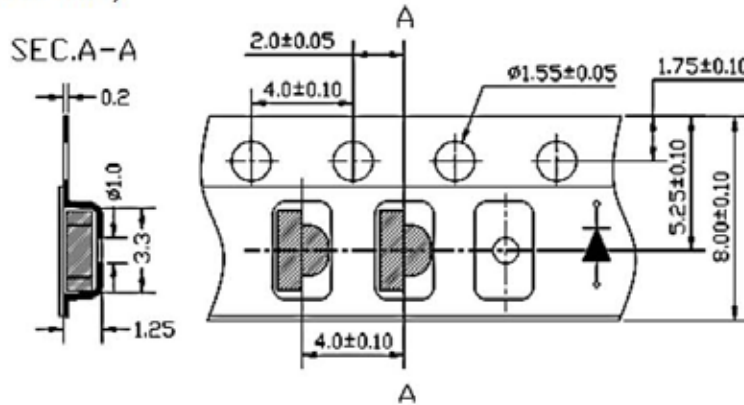
Feeding Direction



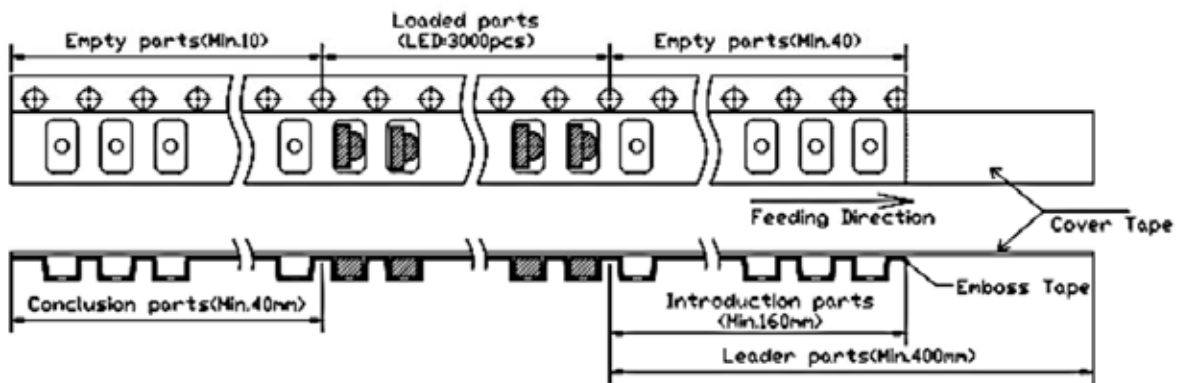
Dimensions of Reel (Unit: mm)



Dimensions of Tape (Unit: mm)



Arrangement of Tape



Notes:

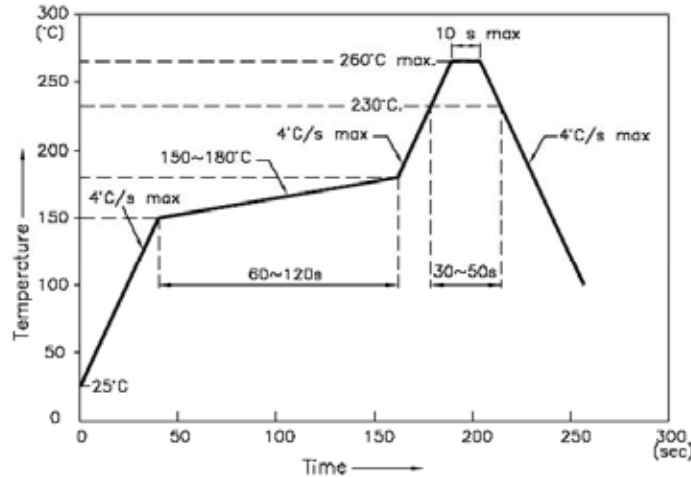
1. Empty component pockets are sealed with top cover tape.
2. The maximum number of missing lamp is two.
3. The cathode is oriented towards the tape sprocket hole.
4. 3,000 pcs/Reel



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SOLDERING CONDITIONS

- Reflow Temp/Time



Notes:

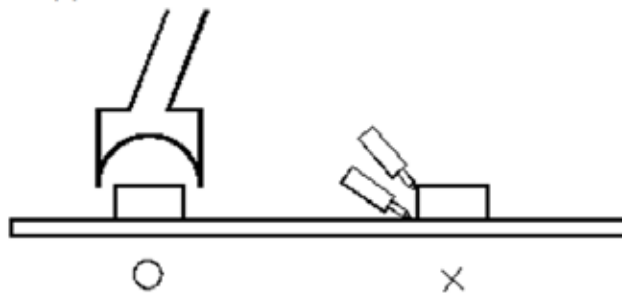
- We recommend the reflow temperature 245°C (±5°C). The maximum soldering temperature should be limited to 260°C.
- Don't cause stress to the epoxy resin while it is exposed to high temperature.
- Number of reflow process should be 2 times or less.

- Soldering Iron

Basic spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of iron should be smaller than 20W and temperatures should be controllable. Surface temperature of the device should be under 230°C.

- Rework

- Customer must finish rework within 5 sec under 260°C.
- The head of iron cannot touch copper foil.
- Twin-head type is preferred.



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