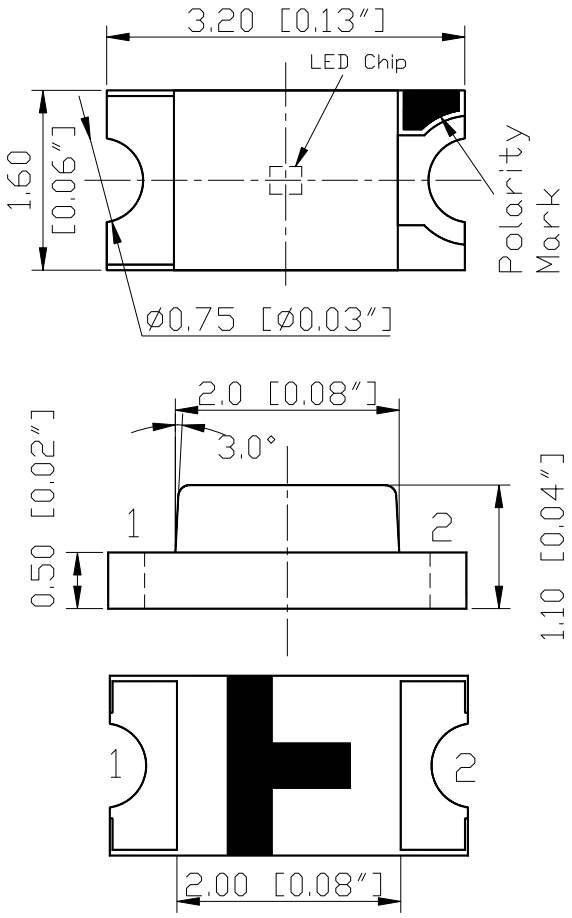
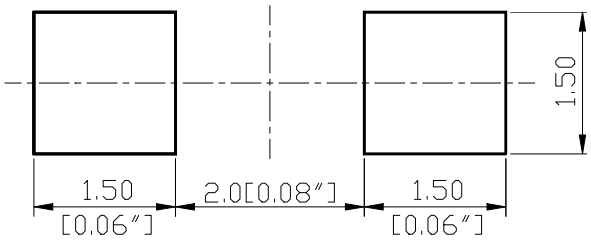
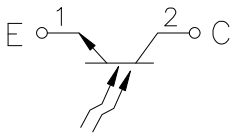
SPECIFICATION CS126APT2C

PACKAGE OUTLINES







ITEM	MATERIALS
Resin (mold)	Epoxy
Dice	Silicon
Lens clor	Black

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01") unless otherwised noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CS126APT2C	Silicon	Phototransistor	Water Clear	140°

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
I_{FP} = 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_{CE}	I_C = 100 uA I_B=0	30	-	-	V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C =2mA I_B=100uA	-	0.2	0.4	V
Collector Based Breakdown Voltage	BV_{CBO}	I_{CBO}=100 uA	5	7	-	uS
Dark Current	I_D	V_{CE}=20V	-	-	100	uA
Wavelenght of Peak Senstivity	λ_P	-	-	940	-	nm

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

OPTICAL CHARACTERISTIC CURVES

FIG.1 COLLECTOR DARK CURRENT
VS. AMBIENT TEMPERATURE

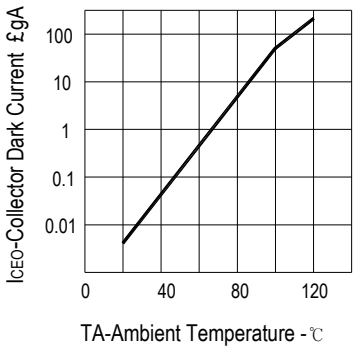


FIG.2 NORMALIZED COLLECTOR CURRENT
VS. AMBIENT TEMPERATURE

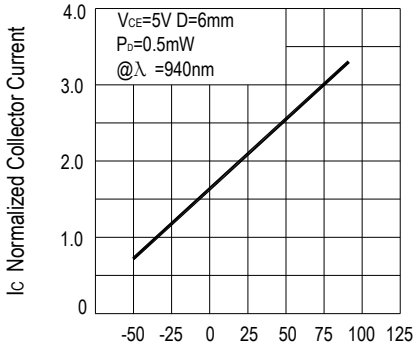


FIG.3 RISE AND FALL TIME
VS. LOAD RESISTANCE

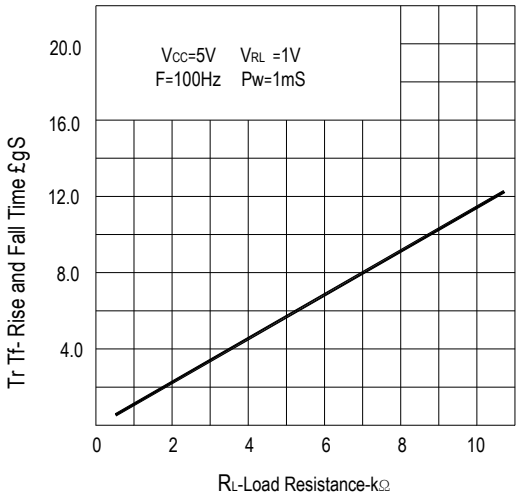
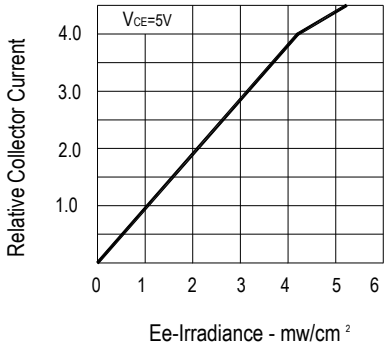
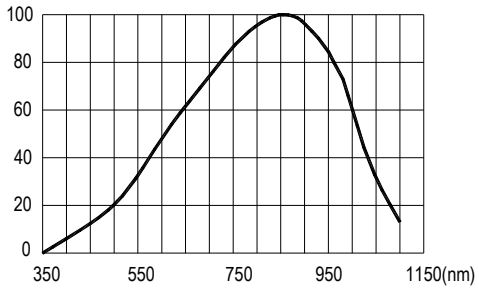


FIG.4 RELATIVE COLLECTOR
CURRENT VS. IRRADIANCE

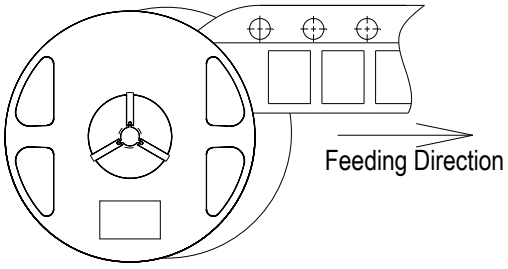


Relative Spectral Response (%)

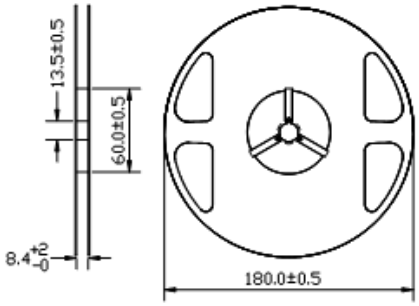


PACKAGING SPECIFICATION

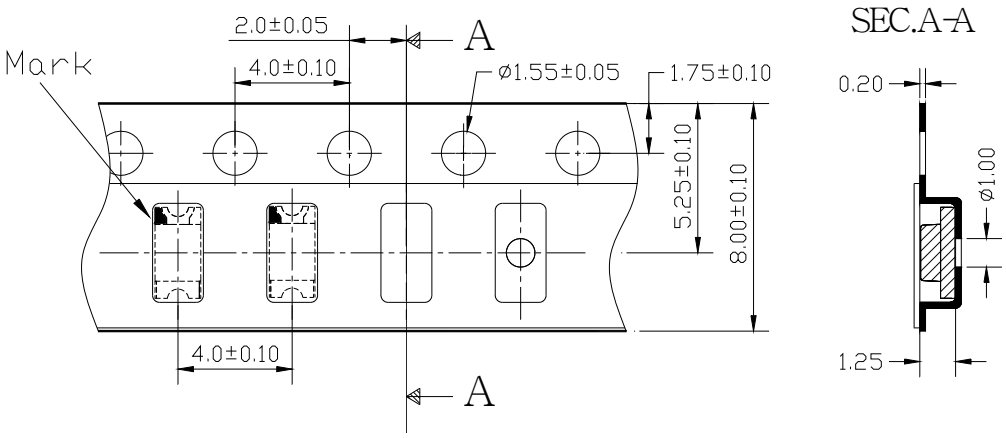
- **Feeding Direction**



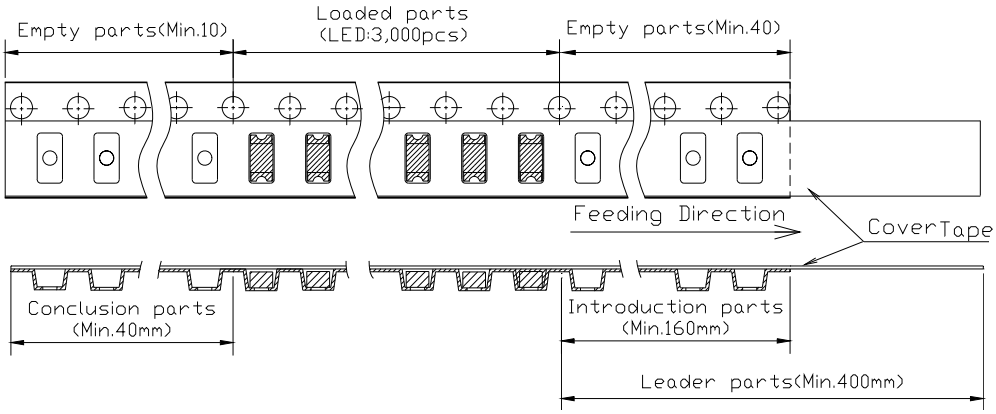
- **Dimensions of Reel (Unit: mm)**



- **Dimensions of Tape (Unit: mm)**



- **Arrangement of Tape**

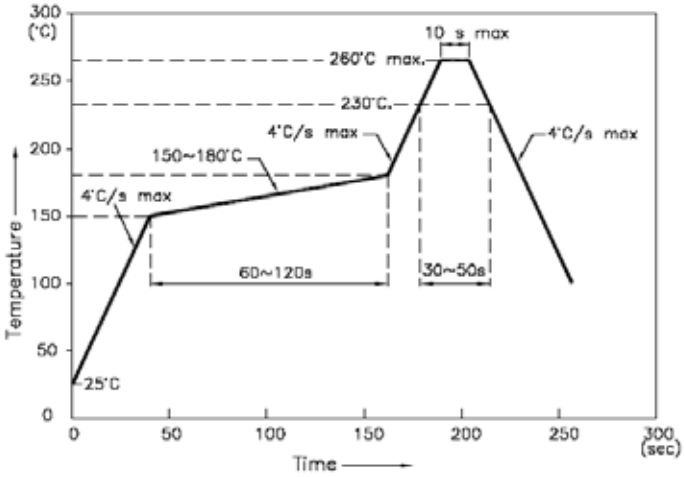


Notes:
1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two;
3. The cathode is oriented towards the tape sprocket hole in accordance with ANSI/EIA RS-481 specifications.
4. 3,000 pcs/Reel

RoHS Compliant
Lead Free

SOLDERING CONDITIONS

REFLOW PROFILE



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

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

- Rework:
  1. Customer must finish rework within 5 sec under 260 ºC
  2. The head of iron cannot touch copper foil
  3. Twin-head type is preferred.