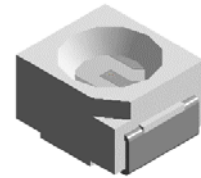


PLCC-2 940nm Infrared LED

VIR-P2A120C

Description

The constructive of this series of LEDs are different from the PCB type SMD LED. The lead-frame is of metal, reflector is made of thermoplastic and construct into this unique type of SMD LED. Such construction is very suitable to be used in high demanding reliability applications.



Features

- High reliability
- Low forward voltage
- Peak wavelength $\lambda_p = 940\text{nm}$
- Good spectral matching to Si photo detectors

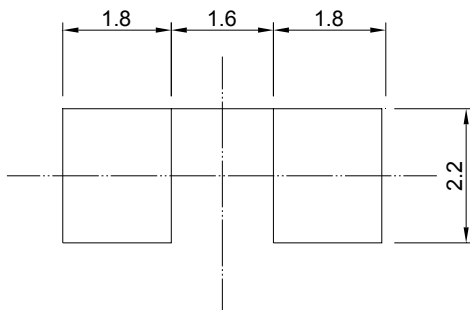
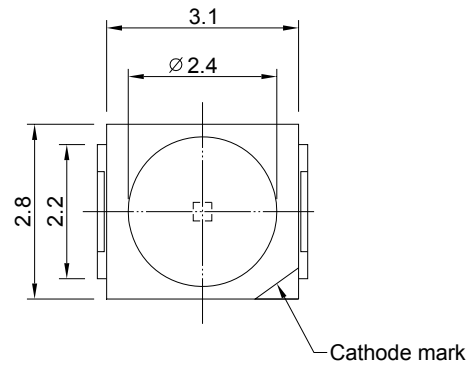
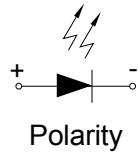
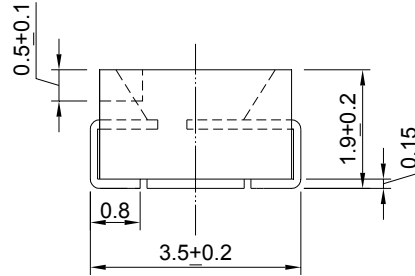
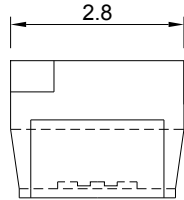


Applications

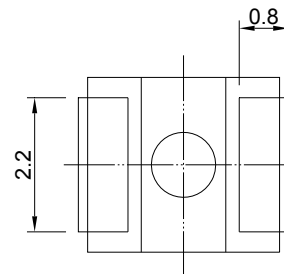
- Infrared remote control unit
- Infrared source for optical counters
- Infrared source for smoke detectors

Package Dimension:

unit : mm



Recommended Soldering Ped



Notes:

1. All Dimensions are millimeters.
2. Tolerance is ± 0.2 mm unless otherwise specified.
3. Specifications are subject to change without notice.

Absolute Maximum Rating $T(\text{amb}) = 25^{\circ}\text{C}$, unless otherwise specified

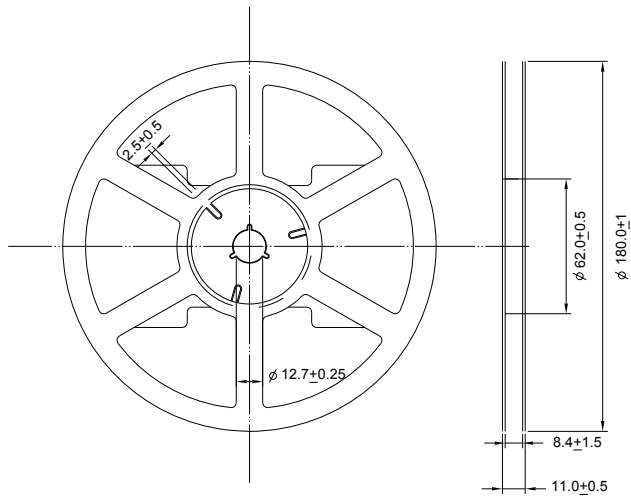
Parameter	Test condition	Symbol	Value	Unit
Reverse Voltage		V_R	5	V
Forward current		I_F	100	mA
Peak Forward Current	$T_p = 100 \text{ us}$, $T_p/T = 0.5$	I_{FM}	200	mA
Surge Forward Current	$T_p = 100 \text{ us}$	I_{FSM}	1.2	A
Power Dissipation		P_v	130	mW
Junction Temperature		T_j	100	$^{\circ}\text{C}$
Operating Temperature Range		T_{amb}	-40 to + 85	$^{\circ}\text{C}$
Storage Temperature		T_{stg}	-40 to + 85	$^{\circ}\text{C}$
Soldering Temperature	10 sec	T_{sd}	260	$^{\circ}\text{C}$

Note: Please take note the Absolute Maximum Rating values. Any operation beyond the specified ratings in this table will result degradation of LED life-span and may cause LED to fail.

Optical Characteristics $T_{\text{amb}} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Radiant Intensity	$I_F = 20\text{mA}$	I_e	1.0	2.0		mW/sr
	$I_F = 100\text{mA}, t_p = 100\text{us}$	I_e		7.0		mW/sr
Radiant Intensity	$I_F = 20\text{mA}$	V_f		1.5	1.7	V
	$I_F = 100\text{mA}, t_p = 100\text{us}$	V_f		1.8	2.4	V
Angle of Half Intensity	$I_F = 20\text{mA}$	$2\theta_{1/2}$		25		deg
Peak Wavelength		λ_p		940		nm
Spectral Bandwidth		$\Delta\lambda$		45		nm
Reverse Current	$V_R = 5\text{Volts}$				10	μA

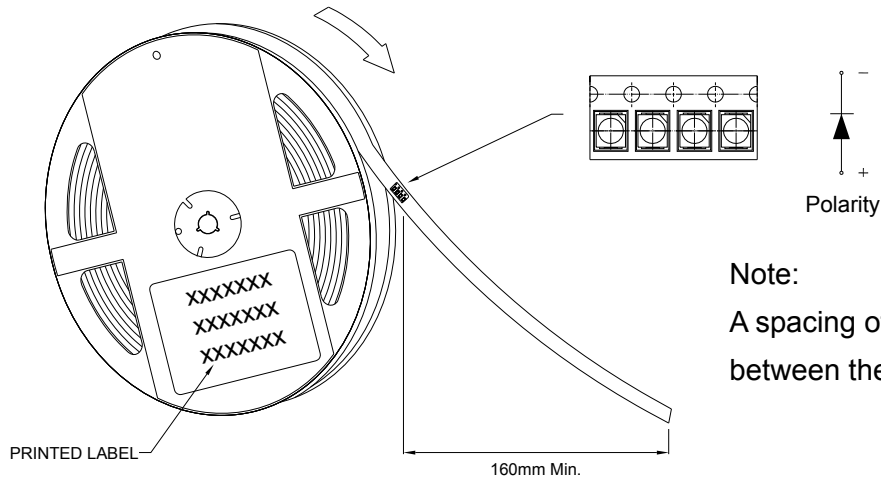
Reel Dimension:



Note:

Available in 8mm carrier tape on 178mm diameter reels. (2000 pieces)

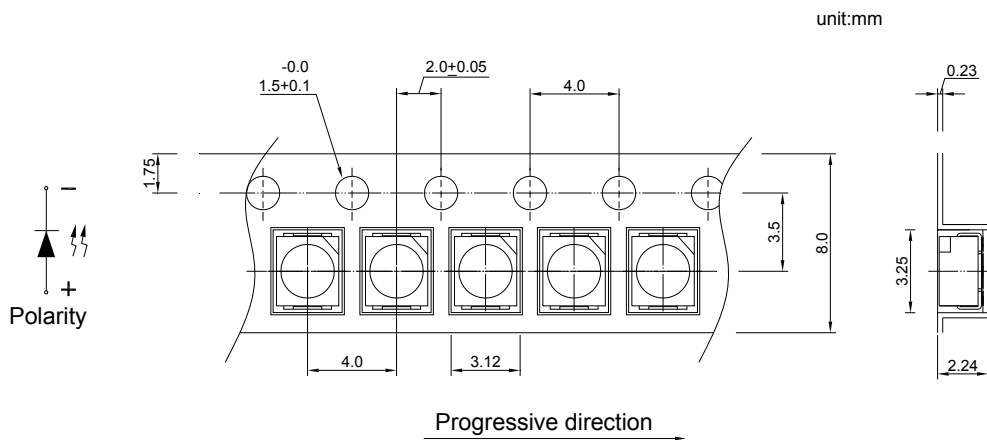
USER FEED DIRECTION



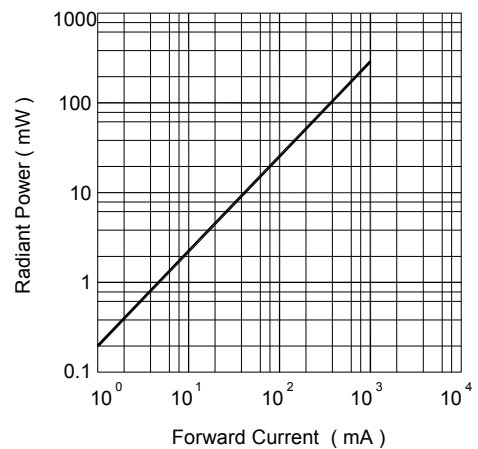
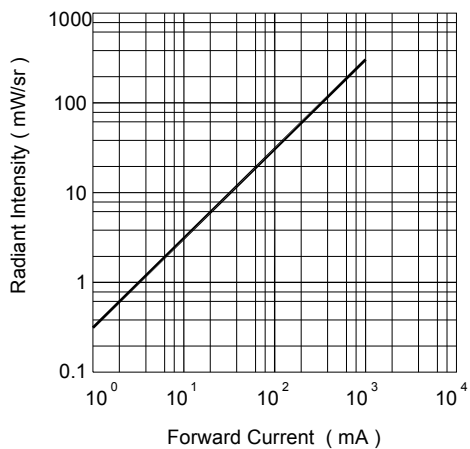
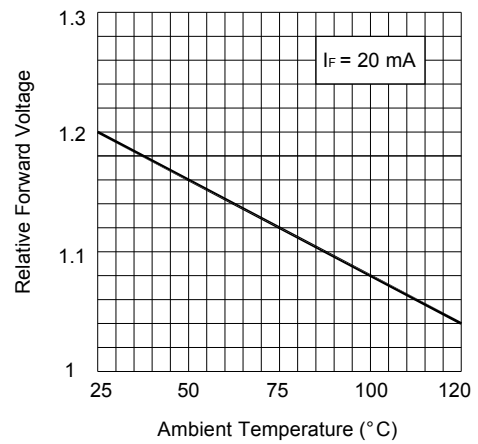
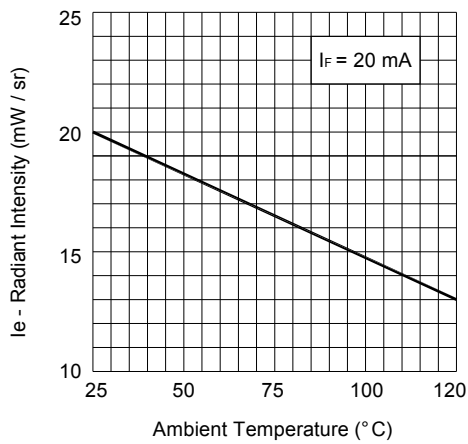
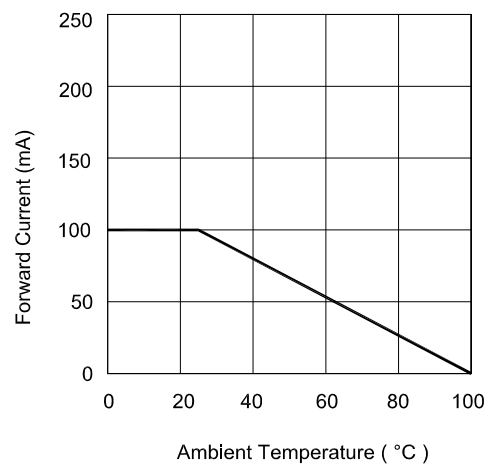
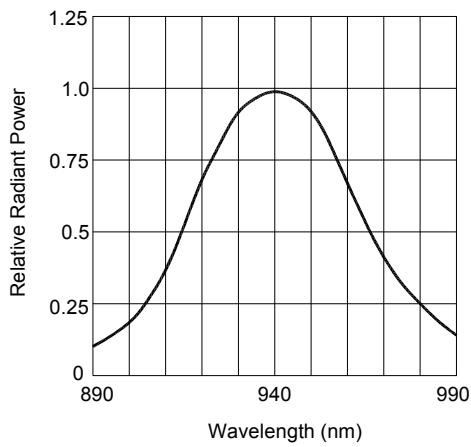
Note:

A spacing of approximately 160mm between the front edge of tape

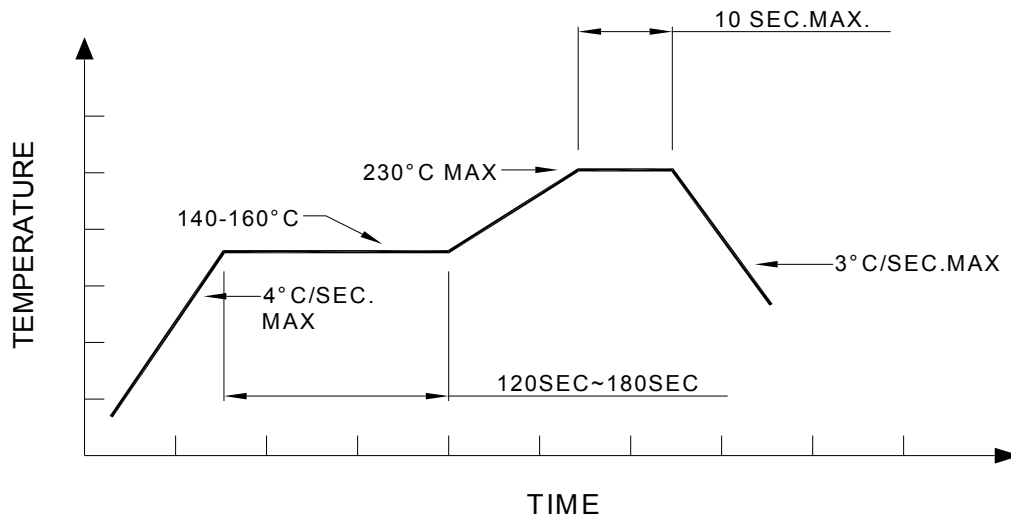
Tape Dimension:



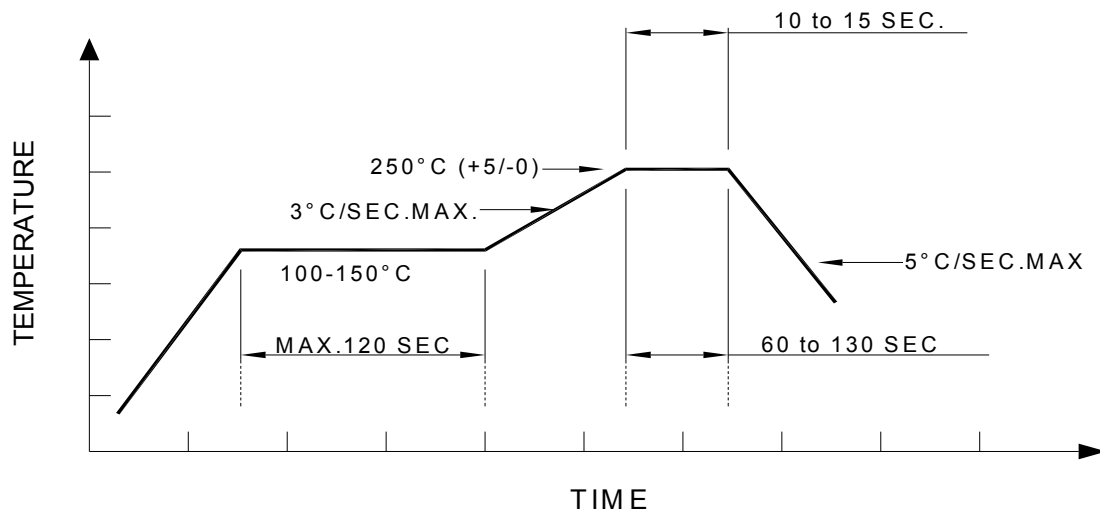
Typical Electro-optical Characteristics Curves



Recommended re-flow soldering profile:



Recommended Pb-free re-flow soldering profile:



Note:

All the specifications listed in this data sheet are suitable for general electronic equipment, office equipment and communication devices. Kindly consult Sales Representatives for specific reliabilities request, Forward Voltage, Luminous Intensity, Wavelength, Radiant Power or Viewing Angle.