Kingbright

3.5x2.8 mm SMD CHIP LED LAMP
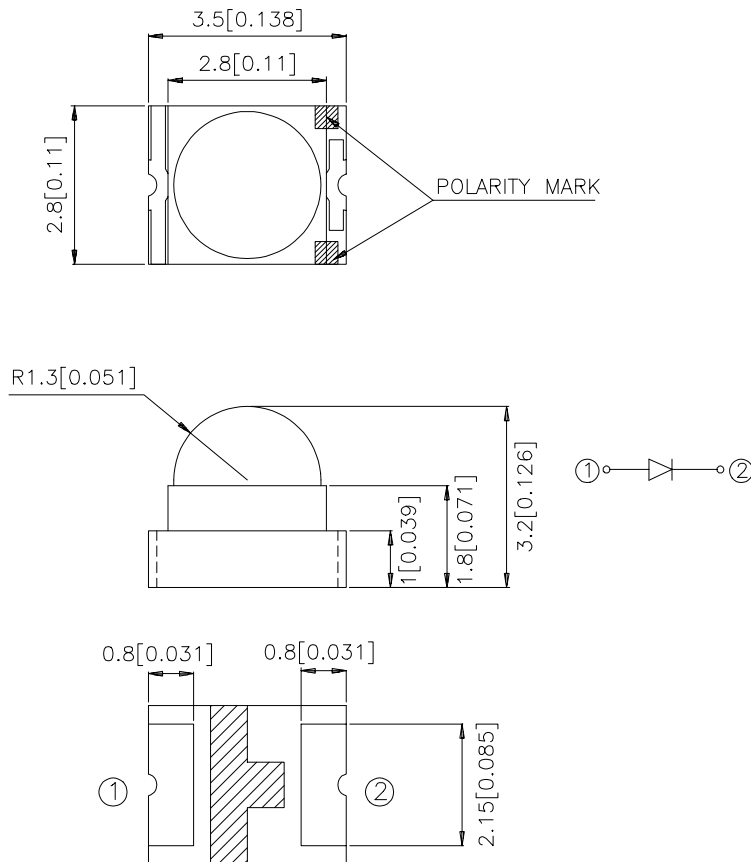
APED3528EC   HIGH EFFICIENCY RED

Features

● SINGLE COLOR.

● SUITABLE FOR ALL SMT ASSEMBLY AND
   SOLDER PROCESS.

● IDEAL FOR BACKLIGHTING.

● AVAILABLE ON TAPE AND REEL.

● PACKAGE : 500PCS / REEL.

Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

Package Dimensions

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.0079") unless otherwise noted.
3. Specifications are subject to change without notice.

Kingbright

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	2θ1/2
APED3528EC	HIGH EFFICIENCY RED (GaAsP/ GaP)	WATER CLEAR	18	50	40°

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
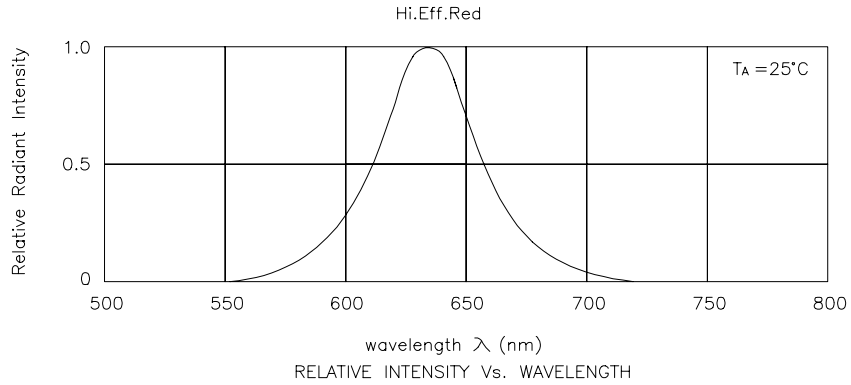
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red	627		nm	I_F=20mA
λD	Dominate Wavelength	High Efficiency Red	625		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	I_F=20mA
C	Capacitance	High Efficiency Red	15		pF	V_F=0V;f=1MHz
V_F	Forward Voltage	High Efficiency Red	2.0	2.5	V	I_F=20mA
I_R	Reverse Current	High Efficiency Red		10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

Parameter	High Efficiency Red	Units
Power dissipation	105	mW
DC Forward Current	30	mA
Peak Forward Current [1]	160	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Kingbright

Hi.Eff.Red

RELATIVE INTENSITY Vs. WAVELENGTH

High Efficiency Red   APED3528EC

FORWARD CURRENT Vs.
FORWARD VOLTAGE

LUMINOUS INTENSITY Vs.
FORWARD CURRENT

FORWARD CURRENT
DERATING CURVE

LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

SPATIAL DISTRIBUTION

Kingbright
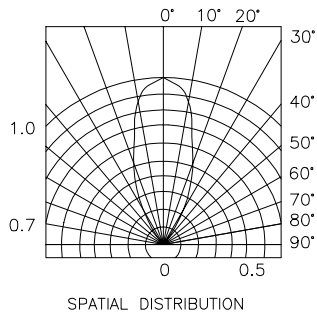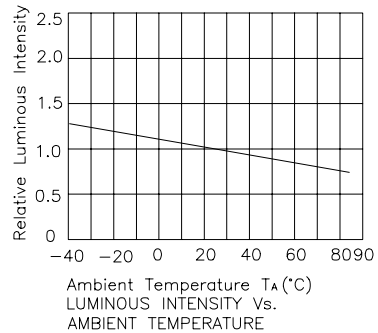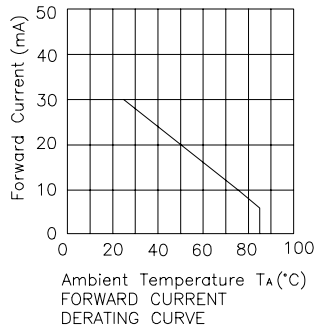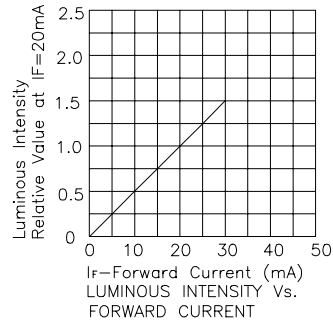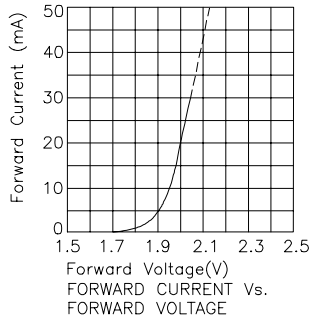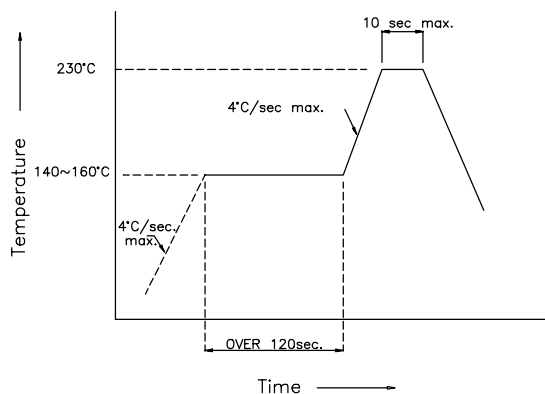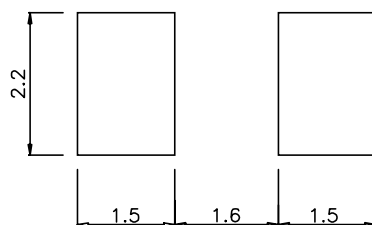
APED3528EC
SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling
process to normal temperature is required between first and
second soldering process.

Recommended Soldering Pattern
(Units : mm)

Tape Specifications
(Units : mm)