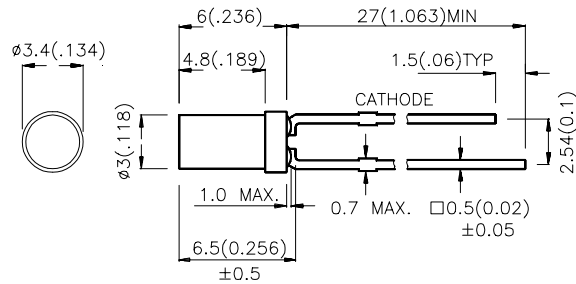


Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

T-1 (3mm) CYLINDRICAL LED LAMPS

| | |
|----------|---------------------|
| E424IDT | HIGH EFFICIENCY RED |
| E424EDT | ORANGE |
| E424GDT | GREEN |
| E424YDT | YELLOW |
| E424SRDT | SUPER BRIGHT RED |

Features

1. CYLINDRICAL TYPE, TOP DIFFUSED.
2. LOW POWER CONSUMPTION.
3. I.C. COMPATIBLE.
4. RELIABLE AND RUGGED.
5. LONG LIFE - SOLID STATE RELIABILITY.
6. AVAILABLE ON TAPE AND REEL.

Description

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

The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

Selection Guide

| Part No. | Emitting Color +Material | λD (nm) | Lens Type | Iv (mcd) @ 10 mA *20mA | | Viewing Angle |
|----------|--------------------------|------------------|-----------------|---------------------------|------|---------------|
| | | | | Min. | Typ. | $\theta 1/2$ |
| E424IDT | GaAsP/GaP | 625 | RED DIFFUSED | 3 | 5 | 100° |
| E424EDT | GaAsP/GaP | 625 | ORANGE DIFFUSED | 3 | 5 | 100° |
| E424GDT | GaP | 568 | GREEN DIFFUSED | 1 | 4 | 100° |
| E424YDT | GaAsP/GaP | 588 | YELLOW DIFFUSED | 1 | 4 | 100° |
| E424SRDT | GaAlAs | 640 | RED DIFFUSED | *40 | *100 | 100° |

Notes:

1. $\theta 1/2$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. * Luminous intensity with asterisk is measured at 20mA.

DATANO :EA0110

REV NO :V1

DATE :AUG/29/2001

Electrical / Optical Characteristics at T_A=25°C

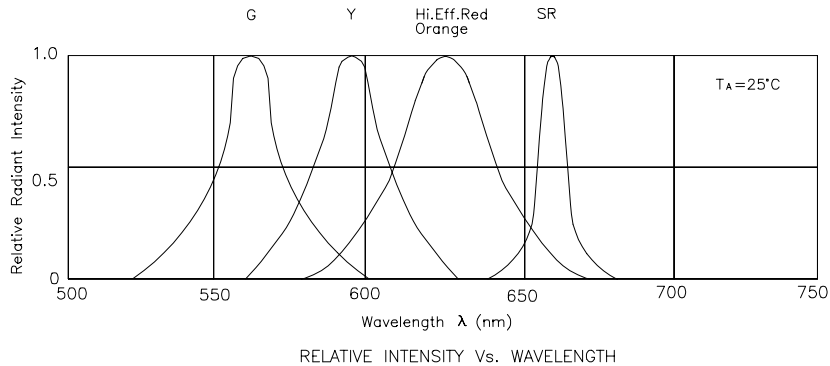
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|-------------------------|--|----------------------------------|---------------------------------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | High Efficiency Red Orange Green Yellow Super Bright Red | 627 627 565 590 660 | | nm | I _F =20mA |
| λ_D | Dominate Wavelength | High Efficiency Red Orange Green Yellow Super Bright Red | 625 625 568 588 640 | | nm | I _F =20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Halfwidth | High Efficiency Red Orange Green Yellow Super Bright Red | 45 45 30 35 20 | | nm | I _F =20mA |
| C | Capacitance | High Efficiency Red Orange Green Yellow Super Bright Red | 15 15 15 20 45 | | pF | V _F =0V;f=1MHz |
| V _F | Forward Voltage | High Efficiency Red Orange Green Yellow Super Bright Red | 2.0 2.0 2.0 2.1 1.85 | 2.5 2.5 2.5 2.5 2.5 | V | I _F =20mA |
| I _R | Reverse Current | All | | 10 | uA | V _R = 5V |

Absolute Maximum Ratings at T_A=25°C

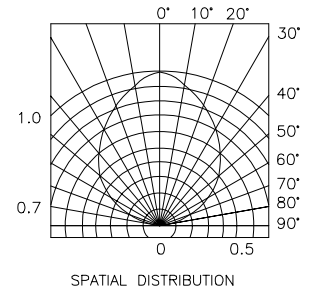
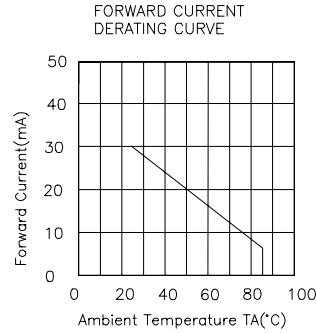
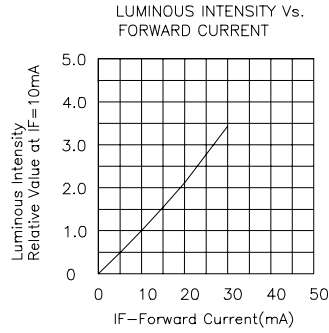
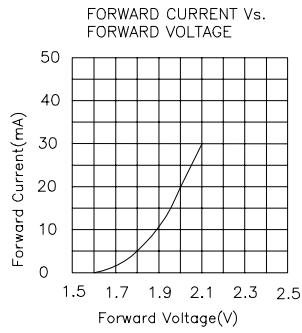
| Parameter | High Efficiency Red | Orange | Green | Yellow | Super Bright Red | Units |
|--------------------------------|---------------------|--------|-------|--------|------------------|-------|
| Power dissipation | 105 | 105 | 105 | 105 | 100 | mW |
| DC Forward Current | 30 | 30 | 25 | 30 | 30 | mA |
| Peak Forward Current [1] | 160 | 160 | 140 | 140 | 155 | mA |
| Reverse Voltage | 5 | 5 | 5 | 5 | 5 | V |
| Operating/Storage Temperature | -40°C To +85°C | | | | | |
| Lead Soldering Temperature [2] | 260°C For 5 Seconds | | | | | |

Notes:

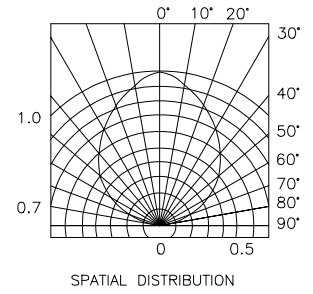
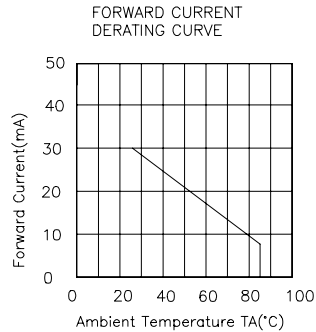
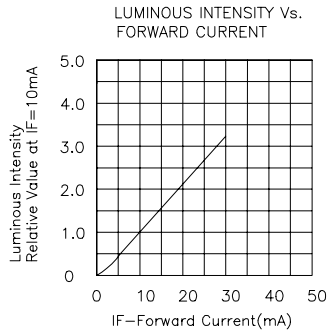
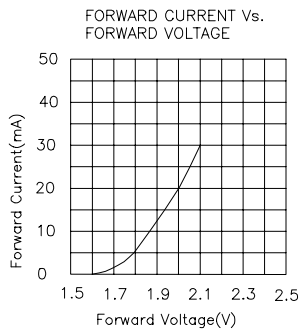
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



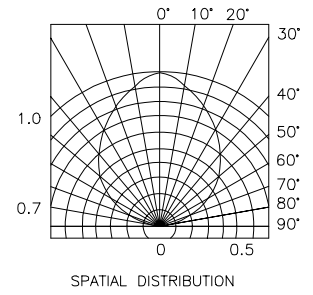
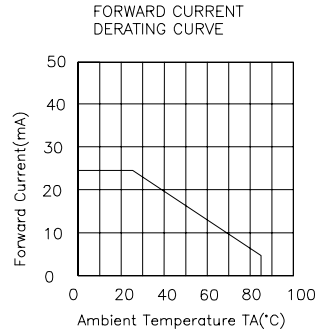
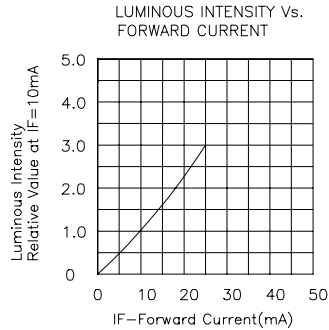
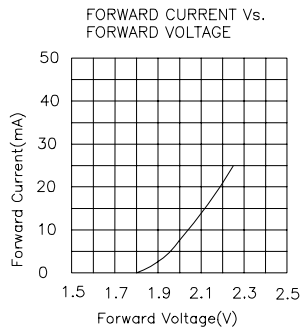
High Efficiency Red E424IDT



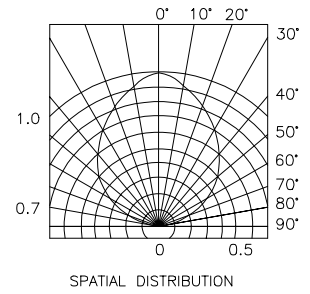
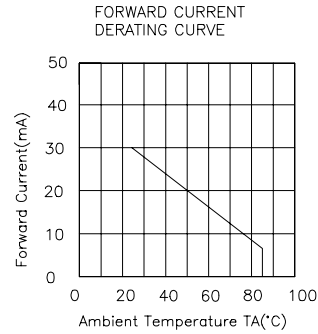
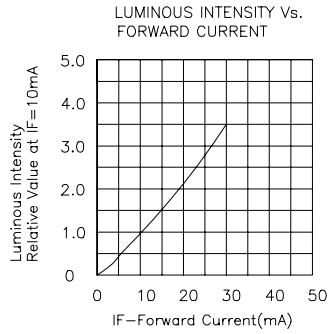
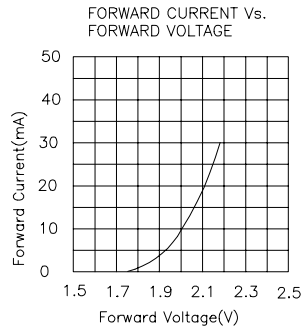
Orange E424EDT



Green E424GDT



Yellow E424YDT



Super Bright Red E424SRDT

