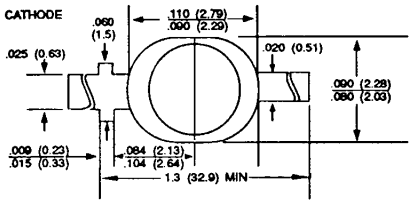
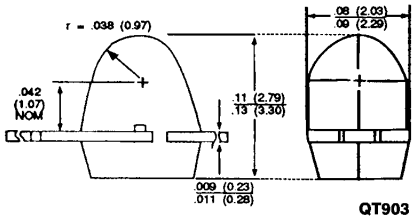
FAIRCHILD
SEMICONDUCTOR™

# SUBMINIATURE T-3/4 RESISTOR LAMPS

## RED MR5000/5010/5020
## YELLOW MR5310
## GREEN MR5410

## PACKAGE DIMENSIONS




QT903

NOTES:
1. ALL DIMENSIONS IN INCHES (mm)
2. TOLERANCES ± .010 INCH UNLESS SPECIFIED

## DESCRIPTION

These T-3/4 LED lamps contain an integral resistor which is in series with the emitter chip. This construction allows for operation in circuits with 5 volt supply voltage; without the use of an external current limiting resistor. Color tinted, diffused epoxy packages are used for all lamps in this group.

## FEATURES

Applications include circuit board status indication; especially in TTL circuits. They allow for savings in component/assembly costs. The lamps are compatible with vapor phase reflow surface mount and conventional solder assembly.

- Integral Current Limiting Resistor (No external resistor required)
- Operates with 5 Volt Supply
- All Colors
  - MR5000/5010/5020 Red Diffused
  - MR5310 Yellow Diffused
  - MR5410 Green Diffused
- Subminiature Package
- Solid-State Reliability

## PHYSICAL CHARACTERISTICS

| TYPE | SOURCE COLOR | LENS COLOR |
|---|---|---|
| MR5000 | Red | Red Diffused |
| MR5010 | Red | Red Diffused |
| MR5020 | Red | Red Diffused |
| MR5310 | Yellow | Yellow Diffused |
| MR5410 | Green | Green Diffused |

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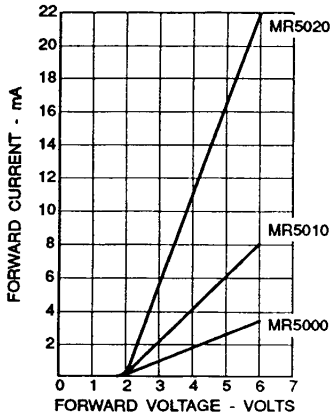
# RESISTOR LAMPS

## TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES
(TA = 25°C Unless Otherwise Specified)

**Red MR5000/5010/5020**

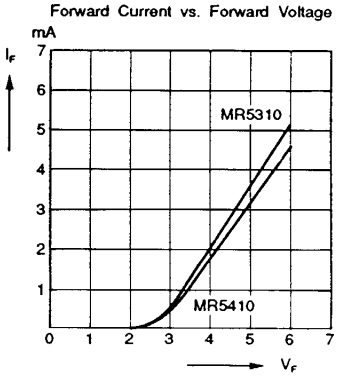
Forward Current vs. Forward Voltage




QT903-20

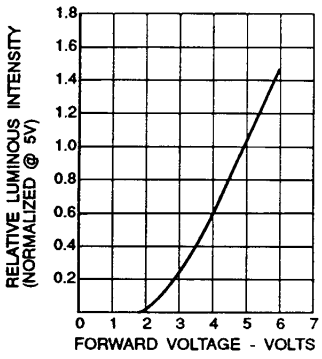
**Green MR5410**
**Yellow MR5310**

Forward Current vs. Forward Voltage



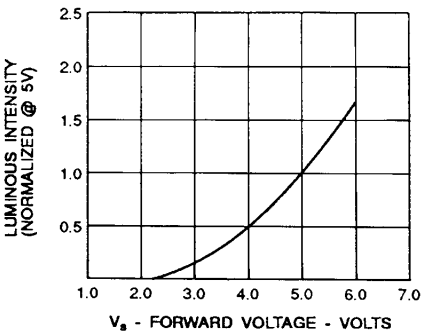

QT903-21

Relative Luminous Intensity vs. Forward Voltage



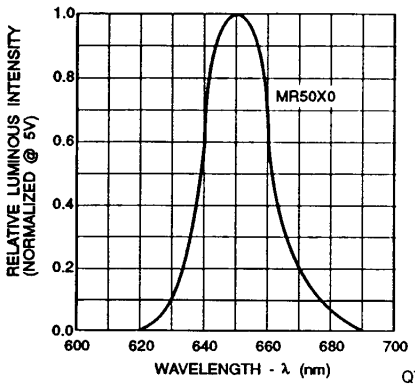

QT903-22

Relative Luminous Intensity vs. Forward Voltage




QT903-23

Spectral Distribution

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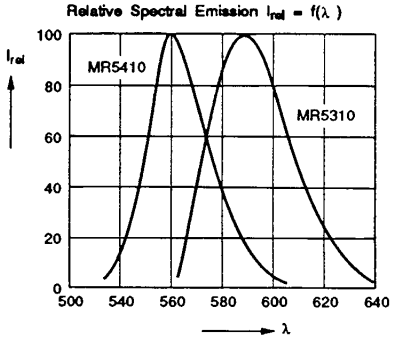
Relative Spectral Emission $I_{rel} = f(\lambda)$

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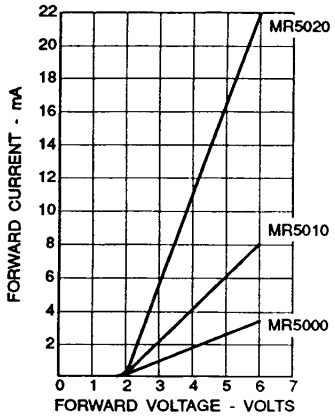
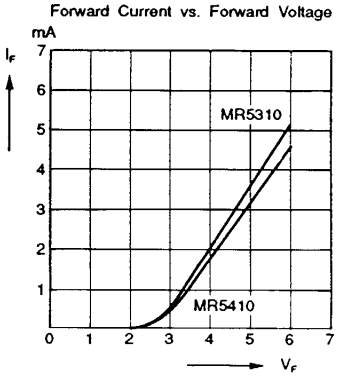
Forward Current vs. Forward Voltage




QT903-20

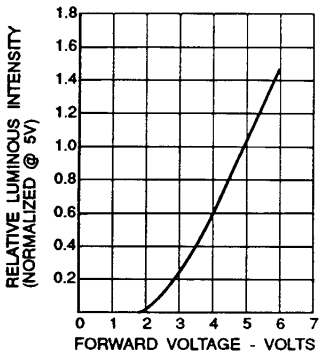
**Green MR5410**
**Yellow MR5310**

Forward Current vs. Forward Voltage



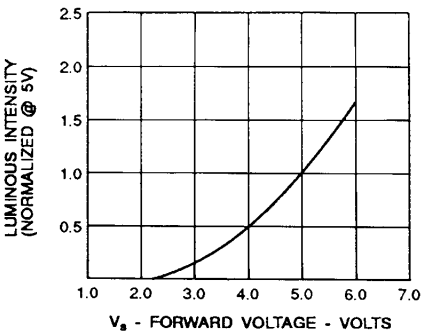

QT903-21

Relative Luminous Intensity vs. Forward Voltage



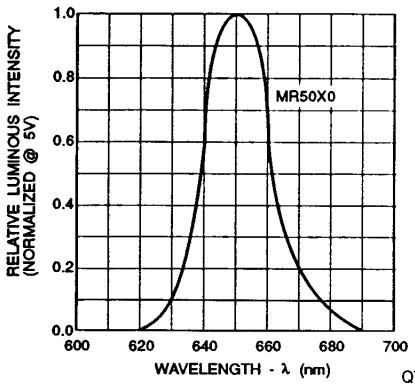

QT903-22

Relative Luminous Intensity vs. Forward Voltage



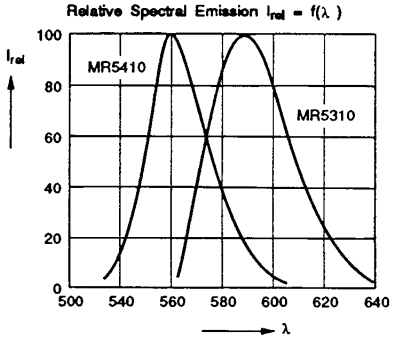

QT903-23

Spectral Distribution




QT903-24

Relative Spectral Emission $I_{rel} = f(\lambda)$

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