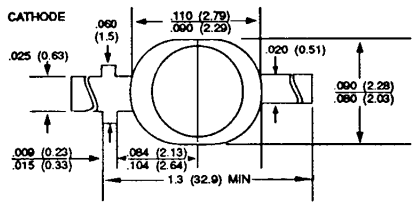
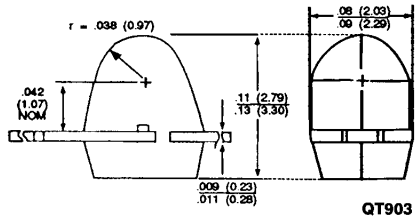
OPTOELECTRONICS

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

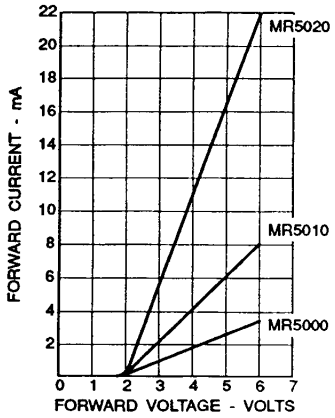
TYPE	SOURCE COLOR	LENS COLOR
MR5000	Red	Red Diffused
MR5010	Red	Red Diffused
MR5020	Red	Red Diffused
MR5310	Yellow	Yellow Diffused
MR5410	Green	Green Diffused

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

(TA = 25°C Unless Otherwise Specified)

Red MR5000/5010/5020

Forward Current vs. Forward Voltage



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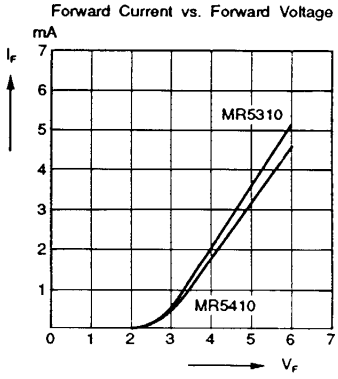
Green MR5410
Yellow MR5310

Forward Current vs. Forward Voltage



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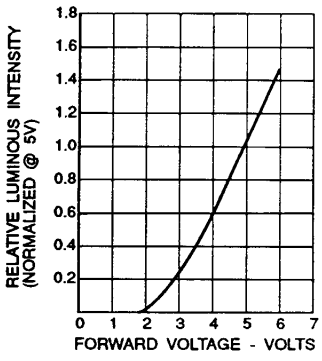
Relative Luminous Intensity vs. Forward Voltage



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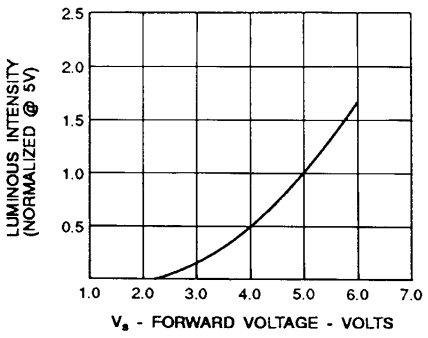
Relative Luminous Intensity vs. Forward Voltage



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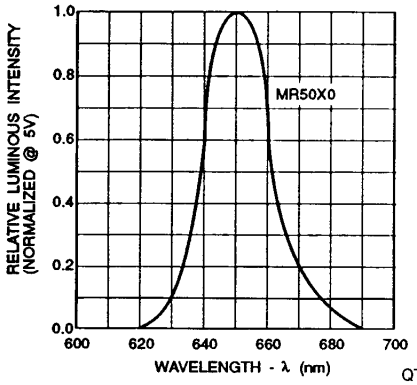
Spectral Distribution



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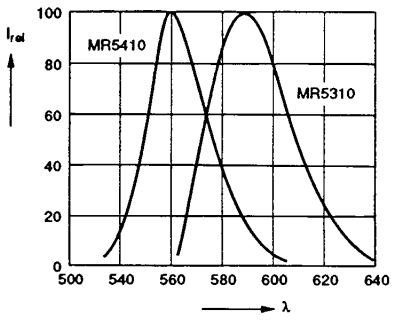
Relative Spectral Emission $I_{rel} = f(\lambda)$



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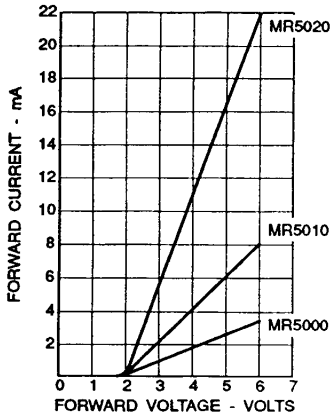
TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

(TA = 25°C Unless Otherwise Specified)

Red MR5000/5010/5020

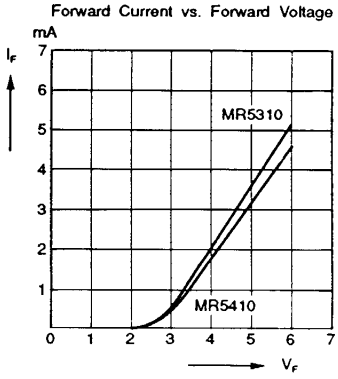
Forward Current vs. Forward Voltage



QT903-20

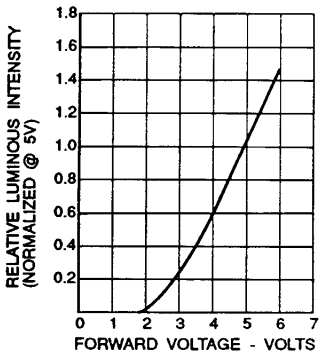
Green MR5410
Yellow MR5310

Forward Current vs. Forward Voltage



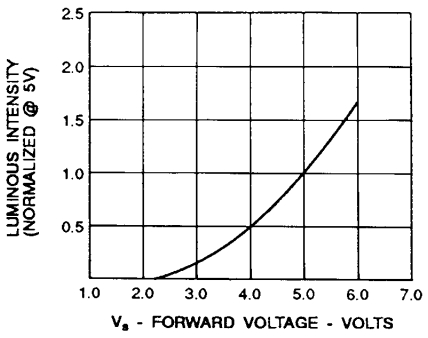
QT903-21

Relative Luminous Intensity vs. Forward Voltage



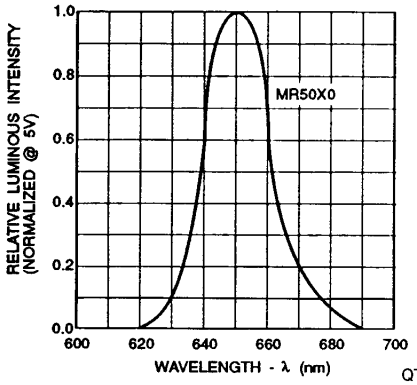
QT903-22

Relative Luminous Intensity vs. Forward Voltage



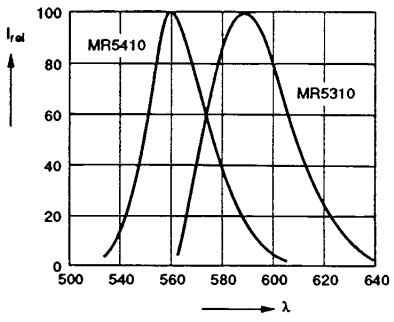
QT903-23

Spectral Distribution



QT903-24

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



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