



LED DISPLAYS:ELS-3191A/B SERIES

ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta=25°C)

| Part No. | Emittd Color | PeakWave Length | Epoxy Color | Surface Color | Common Electrode | $\Delta\lambda$ (nm) | Pd (mW) | If (mA) | Peak (mA) | Vf(V) | | IV(mcd) | |
|-------------|--------------|-----------------|-------------|---------------|------------------|----------------------|---------|---------|-----------|-------|-----|---------|-----|
| | | | | | | | | | | Min | Max | Min | Max |
| ELS-3191AS | Red | 620-630 | White | Black | Cathode | 10 | 35 | 20 | 60 | 1.8 | 2.0 | 82 | 92 |
| ELS-3191AO | Orange | 600-610 | White | Black | Cathode | 10 | 35 | 20 | 60 | 1.8 | 2.0 | 85 | 95 |
| ELS-3191AY | Yellow | 585-595 | White | Black | Cathode | 10 | 35 | 20 | 60 | 1.8 | 2.0 | 88 | 98 |
| ELS-3191AG | Olivine | 565-575 | White | Black | Cathode | 10 | 35 | 20 | 60 | 1.8 | 2.0 | 10 | 20 |
| ELS-3191AGG | Emerald | 515-525 | White | Black | Cathode | 10 | 55 | 20 | 60 | 2.6 | 2.8 | 215 | 225 |
| ELS-3191AB | Blue | 460-470 | White | Black | Cathode | 10 | 55 | 20 | 60 | 2.6 | 2.8 | 15 | 25 |
| ELS-3191AW | White | - | - | Black | Cathode | - | 55 | 20 | 60 | 2.6 | 2.8 | - | - |
| ELS-3191BS | Red | 620-630 | White | Black | Anode | 10 | 35 | 20 | 60 | 1.8 | 2.0 | 82 | 92 |
| ELS-3191BO | Orange | 600-610 | White | Black | Anode | 10 | 35 | 20 | 60 | 1.8 | 2.0 | 85 | 95 |
| ELS-3191BY | Yellow | 585-595 | White | Black | Anode | 10 | 35 | 20 | 60 | 1.8 | 2.0 | 88 | 98 |
| ELS-3191BG | Olivine | 565-575 | White | Black | Anode | 10 | 35 | 20 | 60 | 1.8 | 2.0 | 10 | 20 |
| ELS-3191BGG | Emerald | 515-525 | White | Black | Anode | 10 | 55 | 20 | 60 | 2.6 | 2.8 | 215 | 225 |
| ELS-3191BB | Blue | 460-470 | White | Black | Anode | 10 | 55 | 20 | 60 | 2.6 | 2.8 | 15 | 25 |
| ELS-3191BW | White | - | - | Black | Anode | - | 55 | 20 | 60 | 2.6 | 2.8 | - | - |

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

| ReverseVoltage | ReverseCurrent (VR=5V) | OperatingTemperature Range | StorageTemperature Range | Lead Soldering Temperature |
|----------------|------------------------|----------------------------|--------------------------|----------------------------|
| 5V | 20 μ A | -35°C~+80°C | -45°C~+80°C | 260°C For 3 Seconds |

PACKAGE DIMENSION (Tolerance : ± 0.2 mm)

