



All dimensions are in millimeters / Tolerance is +/- 0.25 unless otherwise noted

**Emitting Colour: red**

**Chip: GaAlAs**

**Epoxy: water clear**

**RoHS compliant**

**Electrical / Optical Characteristics at Ta=25°C**

| Symbol                | Parameter                | Min.    | Typ.    | Max. | Conditions           |
|-----------------------|--------------------------|---------|---------|------|----------------------|
| $2\theta_{1/2}$       | Viewing Angle            |         | 20°     |      |                      |
| $I_v$                 | Luminous Intensity       | 1200mcd | 1400mcd |      | $I_F = 20mA$         |
| $\lambda_{peak}$      | Peak Wavelength          |         | 660nm   |      | $I_F = 20mA$         |
| $\lambda_{dom}$       | Dominant Wavelength      |         | 640nm   |      | $I_F = 20mA$         |
| $\Delta\lambda_{1/2}$ | Spectral Line Half Width |         | 20nm    |      | $I_F = 20mA$         |
| $V_F$                 | Forward Voltage          |         | 1.85V   | 2.5V | $I_F = 20mA$         |
| $I_R$                 | Reverse Current          |         |         | 10µA | $V_R = 5V$           |
| C                     | Capacitance              |         | 45pF    |      | $V_F = 0V; f = 1MHz$ |

**Absolute Maximum Ratings at Ta=25°C**

| Parameter                   |                     |
|-----------------------------|---------------------|
| Power Dissipation           | 100mW               |
| DC Forward Current          | 30mA                |
| Peak Forward Current (1)    | 155mA               |
| Reverse Voltage             | 5V                  |
| Operating Temperature       | -40°C to 85°C       |
| Storage Temperature         | -40°C to 85°C       |
| Lead Solder Temperature (2) | 260°C for 3 seconds |

Notes: (1) 1/10 duty cycle, 0.1ms pulse width / (2) 2mm below package base



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**T-1 3/4 (5mm) LED - red**

|           |       |       |                                |                    |                   |                       |
|-----------|-------|-------|--------------------------------|--------------------|-------------------|-----------------------|
| Revision: | Date: | Name: | Scale: <b>3 : 1</b>            | Drawn: <b>J.J.</b> | Ch'd: <b>D.L.</b> | Date: <b>17.10.05</b> |
|           |       |       | Datasheet: <b>CT501R28C-20</b> |                    |                   |                       |