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AUSTRIA



ELD-850-525

- INFRARED Light Emitting Diode
- 850 nm, 11 mW
- AlGaAs, DDH
- 5 mm epoxy package



Description

ELD-850-525 is an AlGaAs DDH infrared LED, typically emitting at 850 nm with an optical output power of 11 mW. It comes in a hermetically sealed clear 5 mm epoxy resin.

Maximum Rating ($T_{CASE} = 25^{\circ}C$)

| Parameter | Symbol | Values | | Unit |
|--------------------------------|-----------|--------|-------|-------------|
| | | Min. | Max. | |
| Power Dissipation, DC | P_D | | 200 | mW |
| Forward Current | I_{FM} | | 150 | mA |
| Pulse Forward Current* | I_{FP} | | 200 | mA |
| Operating Temperature | T_{OPR} | - 20 | + 80 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | - 40 | + 85 | $^{\circ}C$ |
| Soldering Temperature (max 3s) | T_{SOL} | | + 260 | $^{\circ}C$ |
| Junction Temperature | T_J | | 100 | $^{\circ}C$ |

* $t_p \leq 50 \mu s$, $t_p/T = 1/2$

Electro-Optical Characteristics ($T_{CASE} = 25^{\circ}C$, $I_F = 20 \text{ mA}$)

| Parameter | Symbol | Values | | | Unit |
|--------------------------------------|-----------------|------------|------------|------------|-----------|
| | | Min. | Typ. | Max. | |
| Peak Wavelength | λ_P | 840 | 850 | 860 | nm |
| Spectral Width (FWHM) | $\Delta\lambda$ | | 40 | | nm |
| Forward Voltage @ 20 mA | V_F | | 1.4 | 1.6 | V |
| Forward Voltage @ 100 mA | V_F | | 1.6 | 2.0 | V |
| Reverse Voltage ($I_R = 10 \mu A$) | V_R | 5 | | | V |
| Radiant Power @ 20 mA | Θ_e | 7 | 11 | | mW |
| Radiant Power @ 100 mA | Θ_e | | 45 | | mW |
| Switching time | t_R, t_F | | 10, 20 | | ns |
| Viewing Half Angle | $\Theta_{1/2}$ | | 10 | | deg. |

