# ROITHNER LASERTECHNIK

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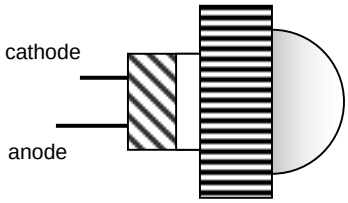

# FAT-655-40

**TECHNICAL DATA**

## RED HIGH POWER LED ARRAY

Wavelength: **typ. 655 nm**
Optical power: **typ. 150 mW at 250 mA**
Package: **M18 x 1 thread package**






**Absolute Maximum Ratings (Tc = 25°C)**

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|---|---|---|
| DC Forward Current | $I_F$ | 300 | mA |
| Pulse Forward Current *) | $I_{FP}$ | 2.5 | A |
| Allowable Reverse Current | $I_R$ | 50 | µA |
| Power Dissipation | $P_D$ | 3 | W |
| Operating Temperature | $T_{OP}$ | -60 .. +75 | °C |
| Storage Temperature | $T_{STG}$ | -60 .. +95 | °C |

*) Pulse width ≤ 10 µs, duty cycle ≤ 0.1

**Optical-Electrical Characteristics (Tc = 25°C)**

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| DC Forward Voltage | $V_F$ | $I_F$ = 250 mA | 12.5 | 13.0 | 14.0 | V |
| DC Reverse Current | $I_R$ | $V_R$ = 5 V | | | 50 | µA |
| Optical Output Power | $P_O$ | $I_F$ = 250 mA | 80 | 150 | - | mW |
| Peak Wavelength | $\lambda_P$ | $I_F$ = 250 mA | 650 | 655 | 670 | nm |
| Spectrum Half Width FWHM | $\Delta\lambda$ | $I_F$ = 250 mA | - | 30 | - | nm |
| Viewing Angle FWHM | $2\theta_{1/2}$ | $I_F$ = 250 mA | | 40 | | ° |
| Rise Time | $t_r$ | $I_F$ = 250 mA | | 80 | | ns |
| Fall Time | $t_f$ | $I_F$ = 250 mA | | 100 | | ns |
| Thermal Resistance | $R_T$ | - | | 20 | | K/W |