

Infrared LEDs

KED353KDL

Characteristics

- High output power
- Transparent epoxy lens
- Direct modulation

Applications

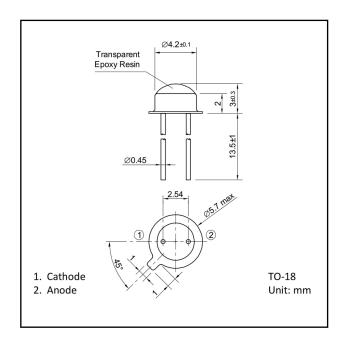
- Optical switches
- Optical encoders
- Optical instruments
- Automatic control apparatus
- Smoke sensors
- Photo-isolators

Chip Material

• GaAlAs

Package

• STEM





Absolute Maximum Ratings

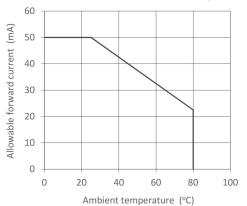
| Parameter | Symbol | Value | Unit | Conditions |
|-----------------------|------------------|-------------|------|--------------------------------------|
| Reverse voltage | V _R | 6 | V | |
| | | | | - |
| Forward current | I _F | 50 | mA | T _a =25 |
| | | | | |
| Peak forward current | I _{FP} | 0.5 | Α | Pulse width=100µs Duty ratio=0.1% |
| | | | | |
| Power dissipation | P _D | 85 | mW | - T _a =25 |
| | | | | |
| Operating temperature | T _{opr} | -20 to +80 | | Avoid dew condensation |
| Storage temperature | T _{stg} | -30 to +100 | | Avoid dew condensation |

Electrical and Optical characteristics (T_a=25 unless otherwise noted)

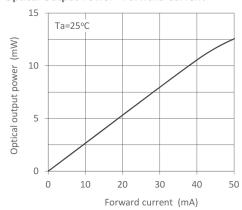
| Parameter | Symbol | Min. | Тур. | Max. | Unit | Conditions |
|----------------------|----------------|------|------|------|------|----------------------|
| Reverse Current | I _R | - | - | 10 | μΑ | V _R =6V |
| Forward voltage | V _F | - | 1.35 | 1.6 | V | I _F =20mA |
| Optical output power | Po | | 6.0 | _ | mW | I _F =20mA |
| Optical output power | 10 | | 0.0 | | | |
| Peak wavelength | p | - | 870 | - | nm | I _F =20mA |
| Spectral width | | _ | 40 | _ | nm | I _F =20mA |
| Spectral width | | - | 40 | | | |
| Half angle | 2 | - | 32 | - | deg. | I _F =20mA |
| | | | | | | |



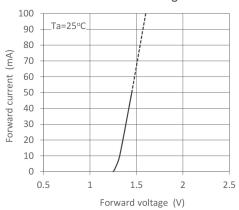
Allowable Forward Current-Ambient Temperature



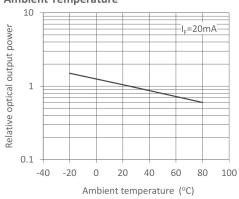
Optical Output Power - Forward Current



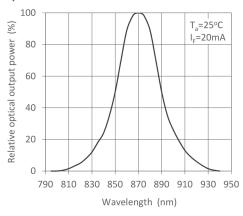
Forward Current - Forward Voltage



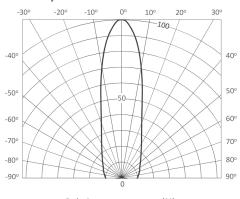
Relative Optical Output Power - Ambient Temperature



Spectral Distribution



Directivity





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