



- FEATURES**
- High Reliability
  - Compact( 4.0)
- APPLICATIONS**
- Card Reader
  - Bar-code Reader
  - Edge Sensing
  - Money-bill Reader

## 1. ABSOLUTE MAXIMUM RATINGS (Ta=25 )

| ITEM                             | SYMBOL | RATINGS    | UNIT |
|----------------------------------|--------|------------|------|
| Forward Current (LED)            | IF     | 60         | mA   |
| Plus Forward Current (LED)*      | IFP    | 1          | A    |
| Reverse Voltage (LED)            | VR     | 5          | V    |
| Power Dissipation (LED)          | PD     | 100        | mW   |
| Collector-Emitter Voltage (PT)   | Vce    | 20         | V    |
| Emitter-Collector Voltage (PT)   | Vec    | 5          | V    |
| Collector Current (PT)           | Ic     | 50         | mA   |
| Collector Power Dissipation (PT) | PC     | 75         | mW   |
| Total Power Dissipation          | Ptot   | 100        | mW   |
| Operating Temp.                  | Topr   | -20 TO 80  |      |
| Storage Temp.                    | Tstg   | -30 TO 100 |      |

\* Tw=10 μ S, T=10mS

## 2. ELECTRICAL & OPTICAL CHARACTERISTICS (Ta=25 )

| ITEM                      | SYMBOL | CONDITIONS              | MIN | TYP | MAX  | UNIT |
|---------------------------|--------|-------------------------|-----|-----|------|------|
| Forward Voltage           | VF     | IF=4mA                  |     | 1.1 | 1.4  | V    |
| Reverse Current           | IR     | VR=5V                   |     |     | 10   | μ A  |
| Peak Emission Wave Length | λ      | IF=4mA                  |     | 950 |      | nm   |
| Spectral Line Half Width  |        | IF=4mA                  |     | 50  |      | nm   |
| Dark Current (Iceo)       | ID     | Vce=10V                 |     |     | 100  | nA   |
| Output Current            | Io     | IF=4mA, Vce=10V, d=1mm  | 30  | 100 |      | μ A  |
| Cross-talk Current        | Ix     | IF=4mA, Vce=10V         |     |     | 1.0% |      |
| Rise Time (10 to 90%)     | Tr     | Vce=5V, Io=0.1mA, RL=1K |     | 20  |      | μ S  |
| Fall Time (10 to 90%)     | Tf     | Vce=5V, Io=0.1mA, RL=1K |     | 30  |      | μ S  |

Measured by reflecting with Aluminum evaporated mirror(d=1.00mm).

