

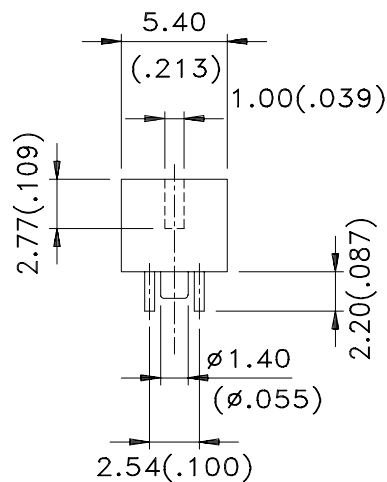
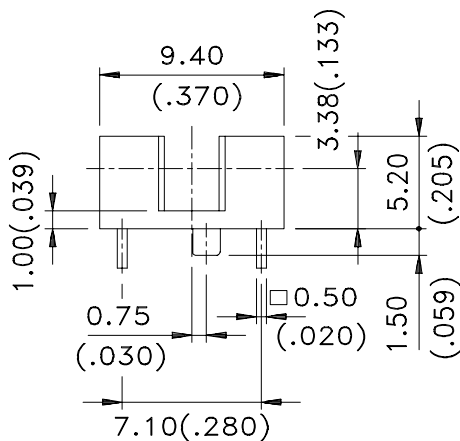
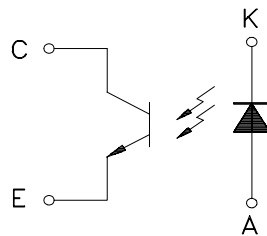
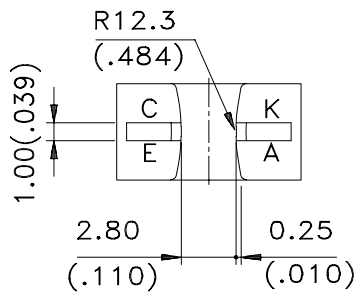
# LITEON LITE-ON TECHNOLOGY CORPORATION

Property of LITON Only

## FEATURES

- \* NON-CONTACT SWITCHING.
- \* FOR DIRECT PC BOARD OR DUAL-IN-LINE SOCKET MOUNTING.
- \* FAST SWITCHING SPEED.

## PACKAGE DIMENSIONS



## NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}(.010\text{'})$  unless otherwise noted.



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## ABSOLUTE MAXIMUM RATINGS AT TA=25

| PARAMETER  | MAXIMUM RATING    | UNIT |
|--|-------------------|------|
| IR Diode Continuous Forward Current                              | 50                | mA   |
| IR Diode Reverse Voltage   | 5                 | V    |
| Transistor Collector Current                                     | 20                | mA   |
| Transistor Power Dissipation                                     | 100               | mW   |
| IR Diode Peak Power Current<br>(Pulse Wide = 1 $\mu$ S, 300 pps) | 3                 | A    |
| Diode Power Dissipation  | 100               | mW   |
| Phototransistor Collector-Emitter Voltage                        | 30                | V    |
| Phototransistor Emitter-Collector Voltage                        | 5                 | V    |
| Operating Temperature Range                                      | -30 to + 100      |      |
| Storage Temperature Range  | -40 to + 100      |      |
| Lead Soldering Temperature<br>[1.6mm(.063") From Body]           | 260 for 5 Seconds |      |



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## ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25

| PARAMETER                               | SYMBOL               | MIN. | TYP. | MAX. | UNIT | TEST CONDITION                                |
|---|----------------------|------|------|------|------|---|
| INPUT LED                               |                      |      |      |      |      |   |
| Forward Voltage                         | V <sub>F</sub>       |      | 1.2  | 1.6  | V    | I <sub>F</sub> = 20mA                         |
| Reverse Current                         | I <sub>R</sub>       |      |      | 100  | μA   | V <sub>R</sub> =5V                            |
| OUTPUT PHOTOTRANSISTOR                  |                      |      |      |      |      |   |
| Collector-Emitter<br>Breakdown Voltage  | V <sub>(BR)CEO</sub> | 30   |      |      | V    | I <sub>C</sub> =1mA                           |
| Emitter-Collector<br>Breakdown Voltage  | V <sub>(BR)ECO</sub> | 5    |      |      | V    | I <sub>E</sub> =0.1mA                         |
| Collector-Emitter<br>Dark Current       | I <sub>CEO</sub>     |      |      | 100  | nA   | V <sub>CE</sub> =10V                          |
| COUPLER                                 |                      |      |      |      |      |   |
| Collector-Emitter<br>Saturation Voltage | V <sub>CE(SAT)</sub> |      |      | 0.4  | V    | I <sub>C</sub> =0.5mA<br>I <sub>F</sub> =20mA |
| On State Collector Current              | I <sub>c(ON)</sub>   | 0.5  | 10   |      | mA   | V <sub>CE</sub> =5V<br>I <sub>F</sub> =20mA   |

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25 Ambient Temperature Unless Otherwise Noted)

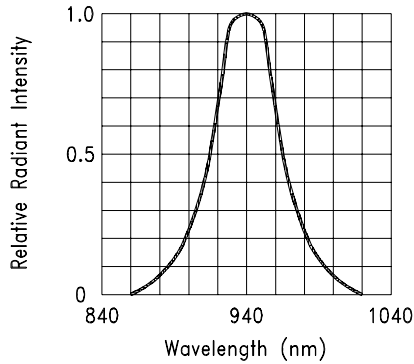


FIG.1 SPECTRAL DISTRIBUTION

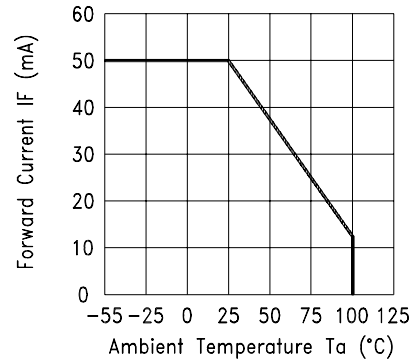


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

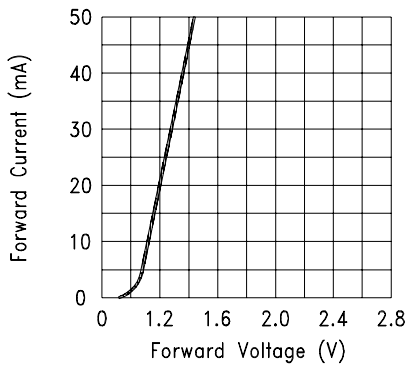


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

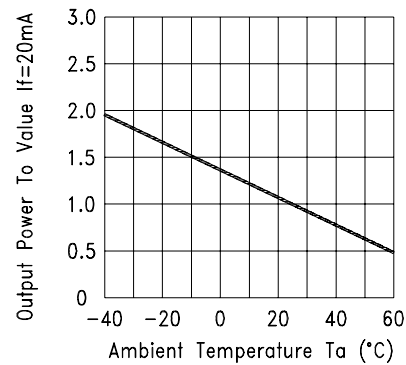


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

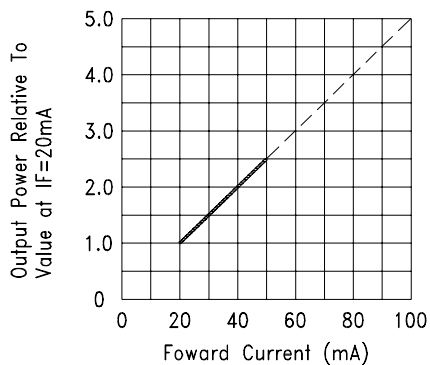


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

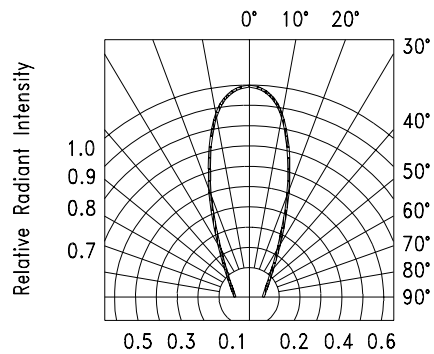


FIG.6 RADIATION DIAGRAM