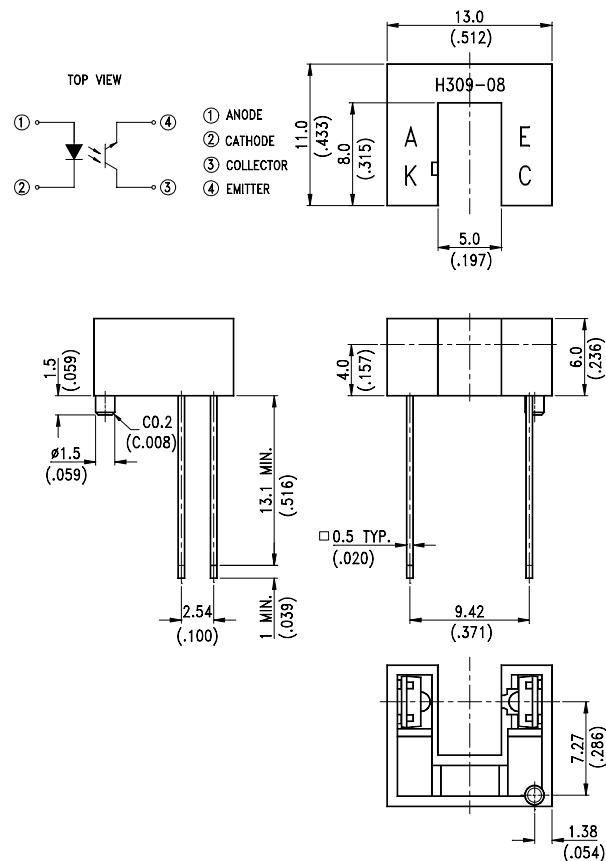


## FEATURES

- \* 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") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.



## ABSOLUTE MAXIMUM RATINGS AT T<sub>A</sub>=25

| PARAMETER                                                 | MAXIMUM RATING    | UNIT |
|-----------------------------------------------------------|-------------------|------|
| INPUT LED                                                 |                   |      |
| Power Dissipation                                         | 75                | mW   |
| Peak Forward Current ( 300 pps , 10 $\mu$ S pulse)        | 1                 | A    |
| Continuous Forward Current                                | 50                | mA   |
| Reverse Voltage                                           | 5                 | V    |
| OUTPUT PHOTOTRANSISTOR                                    |                   |      |
| Power Dissipation                                         | 100               | mW   |
| Collector-Emitter Voltage                                 | 30                | V    |
| Emitter-Collector Voltage                                 | 5                 | V    |
| Collector Current                                         | 20                | mA   |
| Operating Temperature Range                               | -25 to + 85       |      |
| Storage Temperature Range                                 | -55 to + 100      |      |
| Lead Soldering Temperature<br>[ 1.6mm (.063") Form Case ] | 260 for 5 Seconds |      |



# LITE-ON TECHNOLOGY CORPORATION

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## ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25

| PARAMETER                            |           | SYMBOL        | MIN. | TYP. | MAX. | UNIT          | TEST CONDITION                                        |
|--------------------------------------|-----------|---------------|------|------|------|---------------|-------------------------------------------------------|
| INPUT LED                            |           |               |      |      |      |               |                                                       |
| Forward Voltage                      |           | $V_F$         |      | 1.2  | 1.6  | V             | $I_F = 20\text{mA}$                                   |
| Reverse Current                      |           | $I_R$         |      |      | 100  | $\mu\text{A}$ | $V_R=5\text{V}$                                       |
| OUTPUT PHOTOTRANSISTOR               |           |               |      |      |      |               |                                                       |
| Collector-Emitter Breakdown Voltage  |           | $V_{(BR)CEO}$ | 30   |      |      | V             | $I_C=1\text{mA}$                                      |
| Emitter-Collector Breakdown Voltage  |           | $V_{(BR)ECO}$ | 5    |      |      | V             | $I_E=100\mu\text{A}$                                  |
| Collector-Emitter Dark Current       |           | $I_{CEO}$     |      |      | 100  | nA            | $V_{CE}=10\text{V}$                                   |
| COUPLER                              |           |               |      |      |      |               |                                                       |
| Collector-Emitter Saturation Voltage |           | $V_{CE(SAT)}$ |      |      | 0.4  | V             | $I_C=0.25\text{mA}$<br>$I_F=20\text{mA}$              |
| On State Collector Current           |           | $I_{C(ON)}$   | 0.5  |      |      | mA            | $V_{CE}=5\text{V}$<br>$I_F=20\text{mA}$               |
| Response Time                        | Rise Time | $T_R$         |      | 3    | 15   | $\mu\text{S}$ | $V_{CE}=5\text{V}, I_C=2\text{mA}$<br>$R_L=100\Omega$ |
|                                      | Fall Time | $T_F$         |      | 4    | 20   |               |                                                       |

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25 Ambient Temperature Unless Otherwise Noted)

Fig.1 Power Dissipation vs. Ambient Temperature

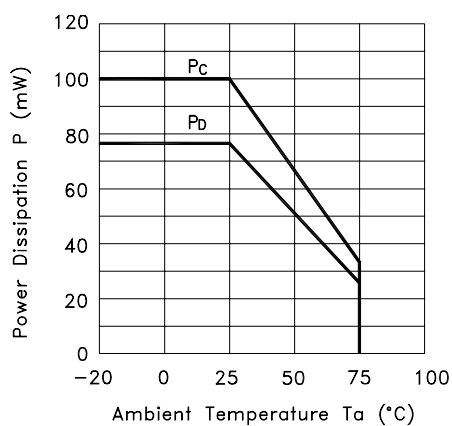


Fig.2 Forward Current vs. Forward Voltage

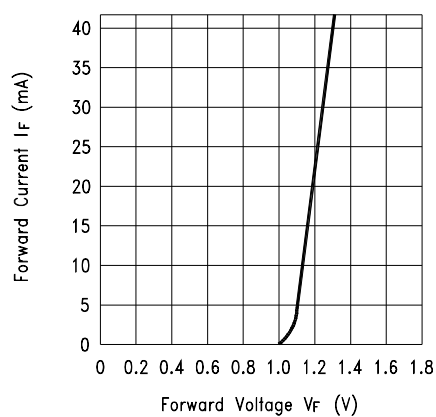


Fig.3 Collector Current vs. Forward Voltage

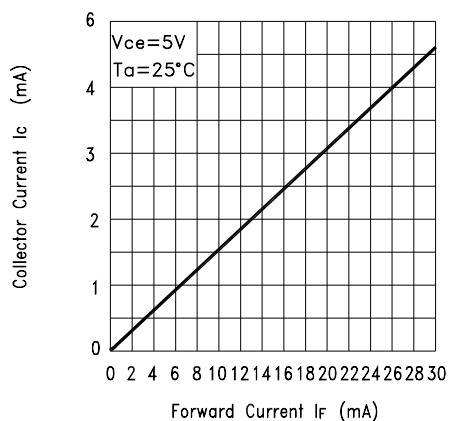
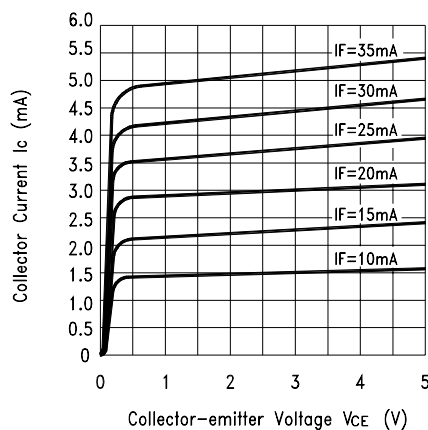


Fig.4 Collector Current vs. Collector-emitter Voltage



## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25 Ambient Temperature Unless Otherwise Noted)

Fig.5 Collector Current vs. Ambient Temperature

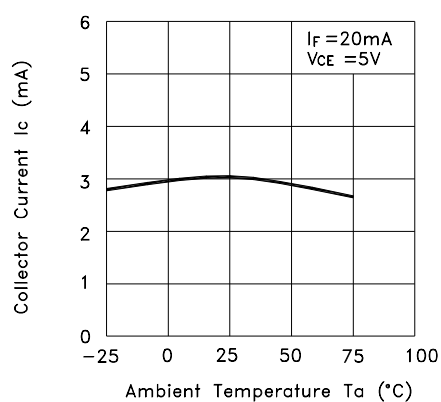


Fig.6 Collector-emitter Saturation Voltage vs. Ambient Temperature

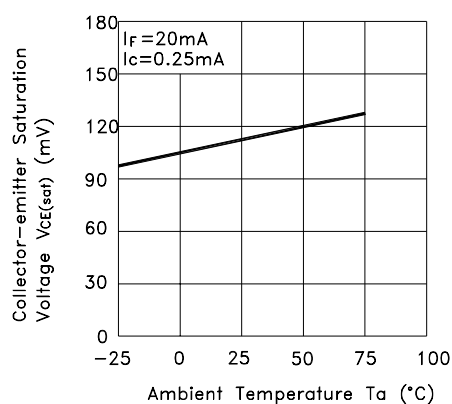
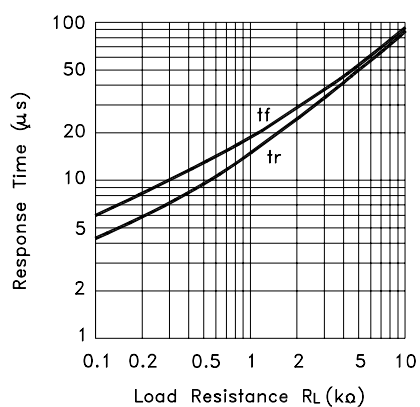
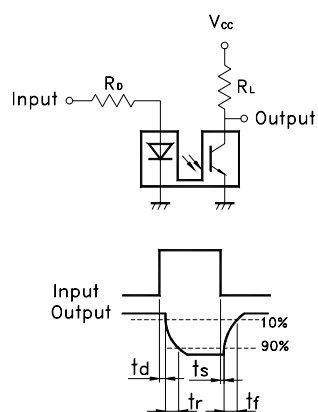


Fig.7 Response Time vs. Load Resistance



Test Circuit for Response Time



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