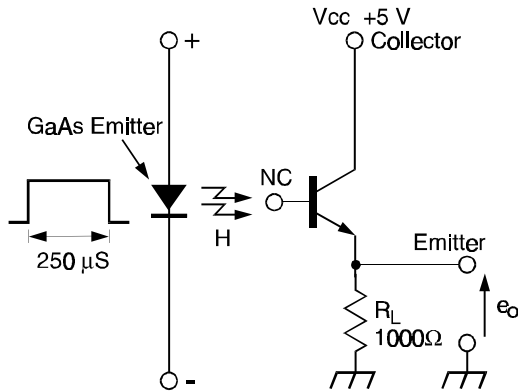
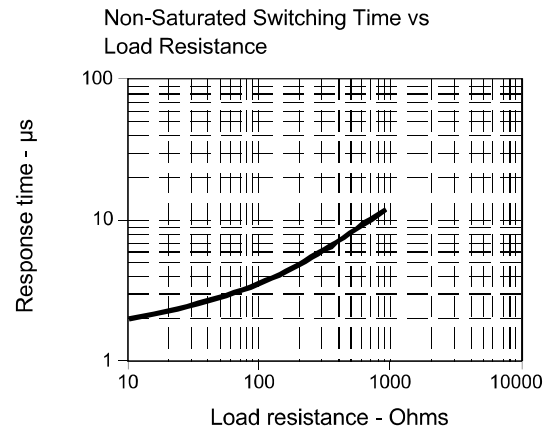
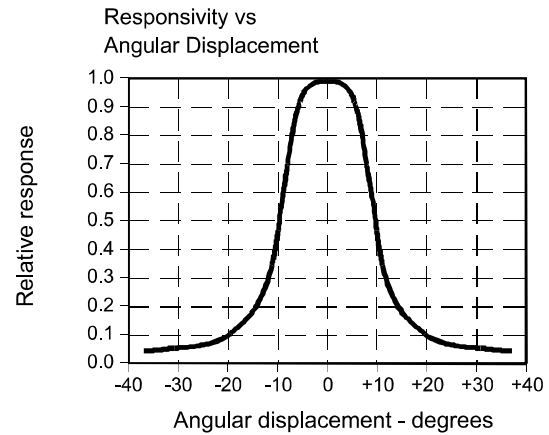
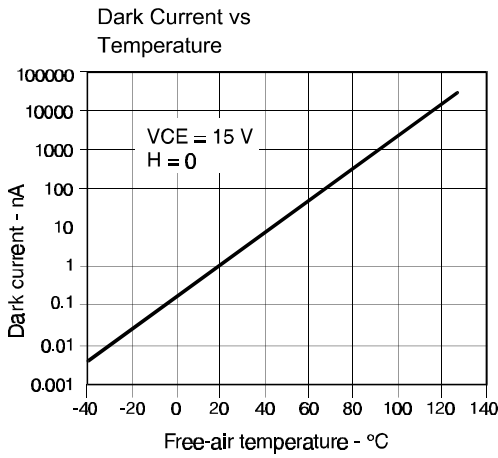
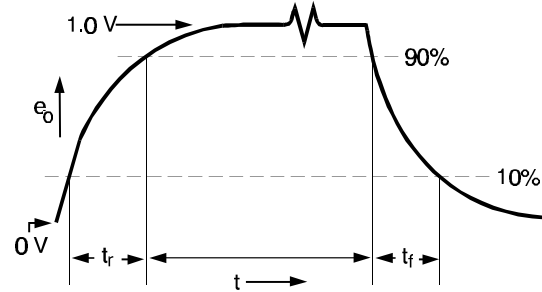


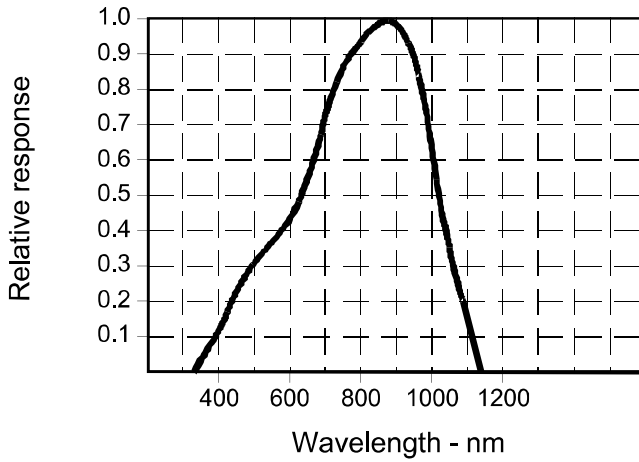
SWITCHING TIME TEST CIRCUIT



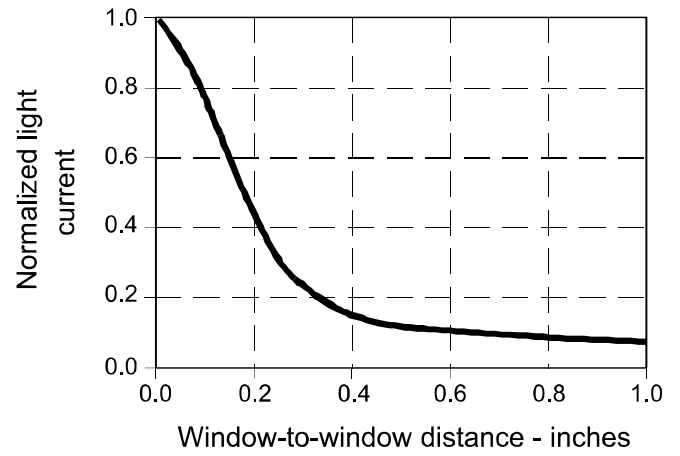
SWITCHING WAVEFORM



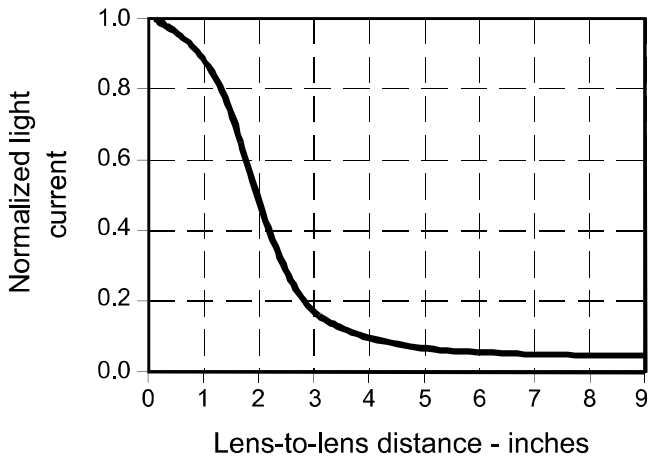
Spectral Responsivity



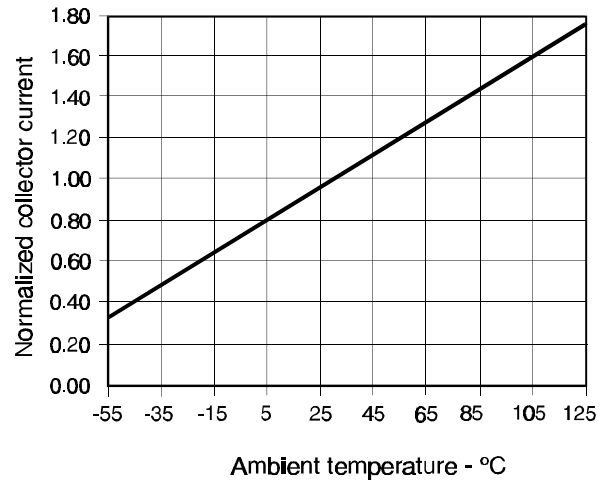
Coupling Characteristics



Coupling Characteristics



Collector Current vs Ambient Temperature



All Performance Curves Show Typical Values

Physical Description

OPTICAL/ELECTRICAL CHARACTERISTICS AT 25°C

| PARAMETER | LIGHT CURRENT | | DARK CURRENT | COLLECTOR BREAKDOWN | EMITTER BREAKDOWN | LIGHT CURRENT RISE TIME | SATURATION VOLTAGE | ANGULAR RESPONSE |
|----------------|---|------|---------------------------|---------------------|-------------------|---|--|------------------|
| TEST CONDITION | $V_{CE} = 5.0V$ $*H = 5 \text{ mW/cm}^2$ | | $V_{CE} = 10V$ $H = 0$ | $I_C = 100 \mu A$ | $I_E = 100 \mu A$ | $I_L = 1 \text{ mA}$ $R_L = 100\Omega$ $V_{CC} = 5V$ | $I_C = 0.4 \text{ ma}$ H as shown | Note 1 |
| SYMBOL | I_L | | I_D | BV_{CEO} | BV_{ECO} | t_r | $V_{CE(sat)}$ | θ |
| UNIT | mA | | nA | VOLTS | VOLTS | μ sec | VOLTS | degrees |
| | MIN | MAX | MAX | MIN | MIN | TYP | TYP | TYP |
| TIL81 | 1.0 | 16.0 | 10 | 30 | 7 | 4.0 | 0.2 | 10 |

ABSOLUTE MAXIMUM RATINGS 25°C FREE AIR TEMPERATURE UNLESS NOTED

| | |
|--|------------------|
| Collector-Emitter Voltage | 50 V |
| Emitter-Collector Voltage | 7 V |
| Continuous Collector Current | 50 mA |
| Continuous Device Dissipation at (or below) 25 °C Free-Air Temperature (See Note) | 50 mW |
| Operating Free-Air Temperature Range | -65 °C to 125 °C |
| Storage Temperature Range | -65 °C to 150 °C |
| Lead Temperature 1/15 inch from Case for 10 Seconds | 240 °C |