

| BASIC CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified) | | | | | | |
|---|---|-------------|------|------|------|---------------|
| PARAMETER | TEST CONDITION | SYMBOL | MIN. | TYP. | MAX. | UNIT |
| COUPLER | | | | | | |
| Collector current | $V_{CE} = 5\text{ V}$, $I_F = 15\text{ mA}$ | I_C | 300 | 600 | | μA |
| Collector emitter saturation voltage | $I_F = 15\text{ mA}$, $I_C = 0.05\text{ mA}$ | V_{CEsat} | | | 0.4 | V |
| INPUT (EMITTER) | | | | | | |
| Forward voltage | $I_F = 15\text{ mA}$ | V_F | 1 | 1.2 | 1.4 | V |
| Reverse current | $V_R = 5\text{ V}$ | I_R | | | 10 | μA |
| Junction capacitance | $V_R = 0\text{ V}$, $f = 1\text{ MHz}$ | C_j | | 25 | | pF |
| OUTPUT (DETECTOR) | | | | | | |
| Collector emitter voltage I_C | $I_C = 1\text{ mA}$ | V_{CEO} | 20 | | | V |
| Emitter collector voltage | $I_E = 100\text{ }\mu\text{A}$ | V_{ECO} | 7 | | | V |
| Collector dark current | $V_{CE} = 25\text{ V}$, $I_F = 0\text{ A}$, $E = 0\text{ lx}$ | I_{CEO} | | 1 | 100 | nA |
| SWITCHING CHARACTERISTICS | | | | | | |
| Rise time | $I_C = 0.3\text{ mA}$, $V_{CE} = 5\text{ V}$, $R_L = 100\text{ }\Omega$ (see figure 3) | t_r | | 20 | 150 | μs |
| Fall time | $I_C = 0.3\text{ mA}$, $V_{CE} = 5\text{ V}$, $R_L = 100\text{ }\Omega$ (see figure 3) | t_f | | 30 | 150 | μs |

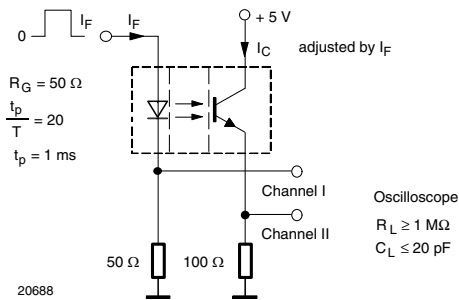
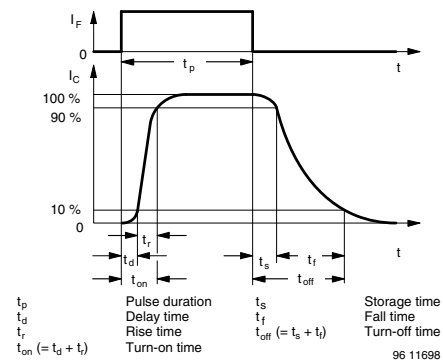

 Fig. 3 - Test Circuit for t_r and t_f


Fig. 4 - Switching Times

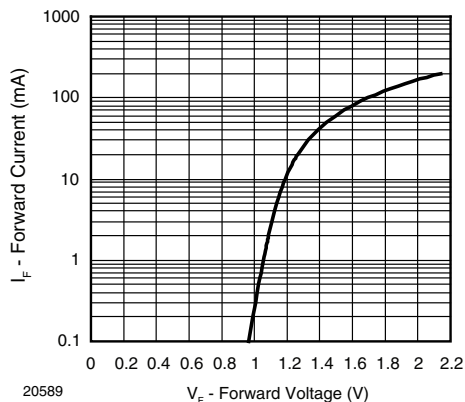
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Fig. 5 - Forward Current vs. Forward Voltage

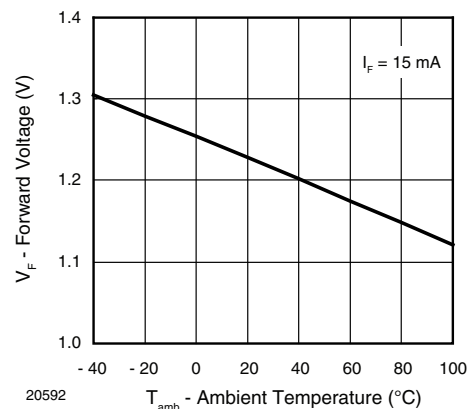


Fig. 6 - Forward Voltage vs. Ambient Temperature

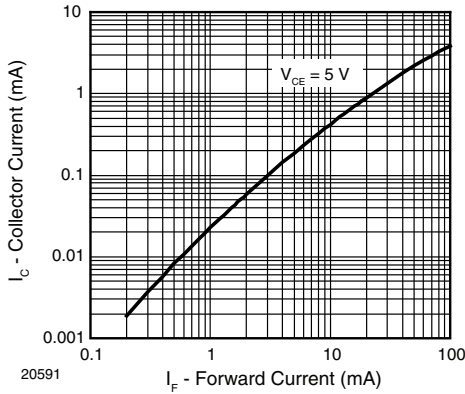


Fig. 7 - Collector Current vs. Forward Current

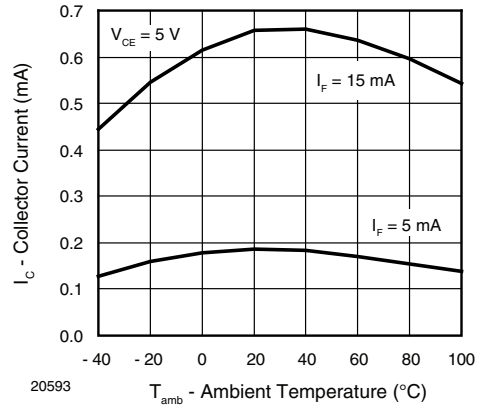


Fig. 10 - Collector Current vs. Ambient Temperature

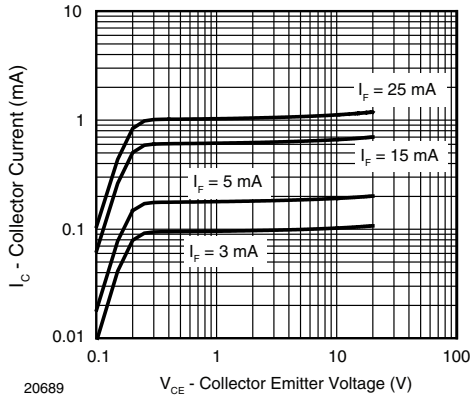


Fig. 8 - Collector Current vs. Collector Emitter Voltage

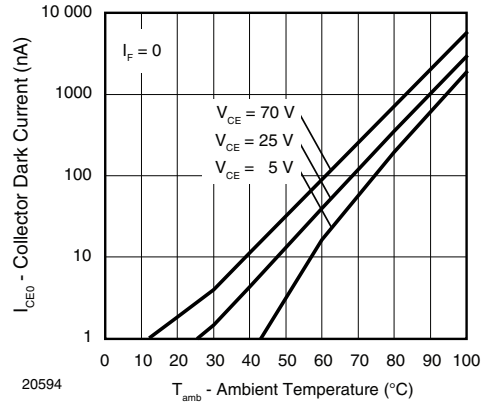


Fig. 11 - Collector Dark Current vs. Ambient Temperature

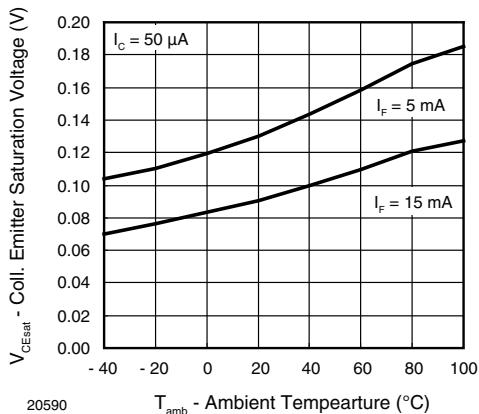


Fig. 9 - Collector Emitter Saturation Voltage vs. Ambient Temperature

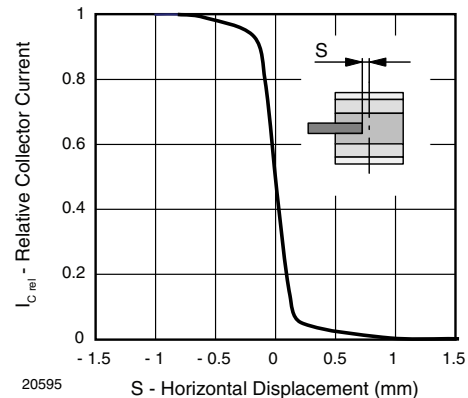


Fig. 12 - Relative Collector Current vs. Horizontal Displacement