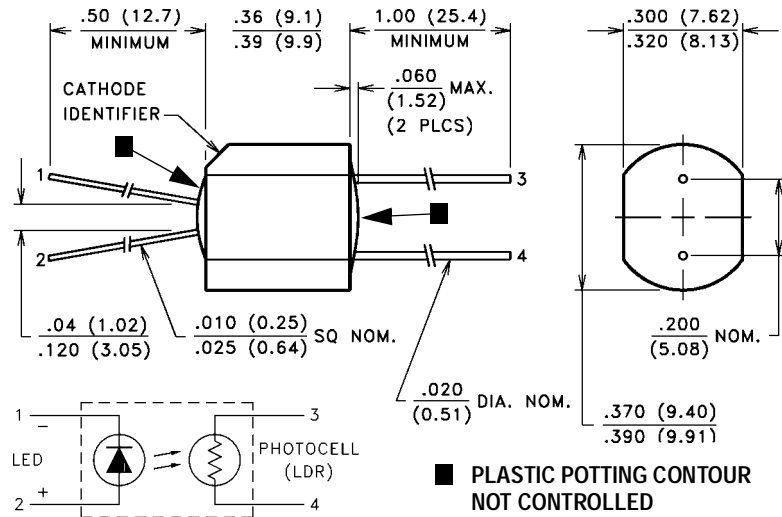


PACKAGE DIMENSIONS INCH (MM)



DESCRIPTION

VTL5C8 is similar to VTL5C2 with a low temperature coefficient of resistance and little light history memory, but has a more shallow slope and a lower "on" resistance at low (1 mA) drive currents.

ABSOLUTE MAXIMUM RATINGS @ 25°C

| | | | |
|--------------------------------|----------------|---------------------------------------------|------------------|
| Maximum Temperatures | | LED Forward Voltage Drop @ 20 mA: | 2.8V (2.2V Typ.) |
| Storage and Operating: | -40°C to 75°C | Min. Isolation Voltage @ 70% Rel. Humidity: | 2500 VRMS |
| Cell Power: | 175 mW | Output Cell Capacitance: | 5.0 pF |
| Derate above 30°C: | 3.9 mW/°C | Cell Voltage: | 500V |
| LED Current: | 40 mA 1 | Input - Output Coupling Capacitance: | 0.5 pF |
| Derate above 30°C: | 0.9 mA/°C | | |
| LED Reverse Breakdown Voltage: | 3.0 V | | |

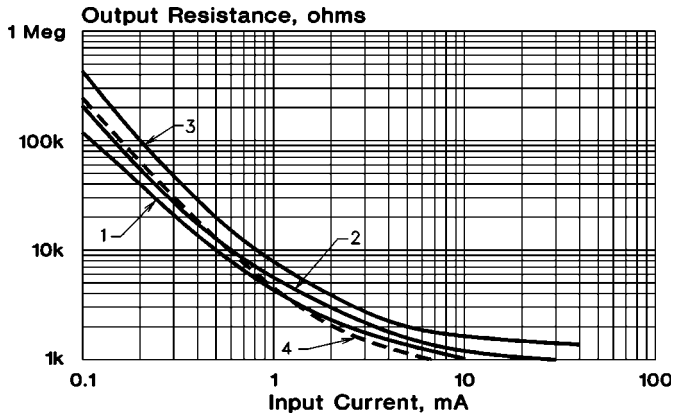
ELECTRO-OPTICAL CHARACTERISTICS @ 25°C

| Part Number | Material Type | ON Resistance 2 | | OFF Resistance 3 @ 10 sec. (Min.) | Slope (Typ.) @ 0.5 mA R @ 5 mA | Dynamic Range (Typ.) R _{DARK} R @ 20 mA | Response Time 4 | |
|-------------|---------------|------------------------|----------------------------|---------------------------------------------|--------------------------------------|--------------------------------------------------------|---------------------------------------------|-----------------------------------|
| | | Input current | Dark Adapted (Typ.) | | | | Turn-on to 63% Final R _{ON} (Typ.) | Turn-off (Decay) to 100 kΩ (Max.) |
| VTL5C8 | 0 | 1 mA 4 mA 16 mA | 4.8 kΩ 1.8 kΩ 1.0 kΩ | 10 MΩ | 8 | 80 db | 4 ms | 60 ms |

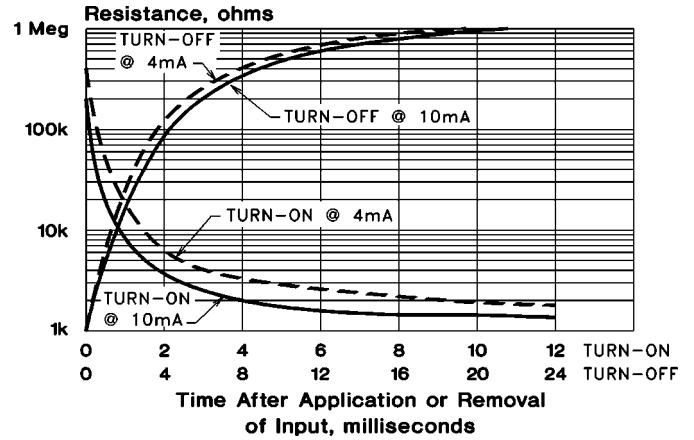
Refer to Specification Notes, page 41.

Typical Performance Curves

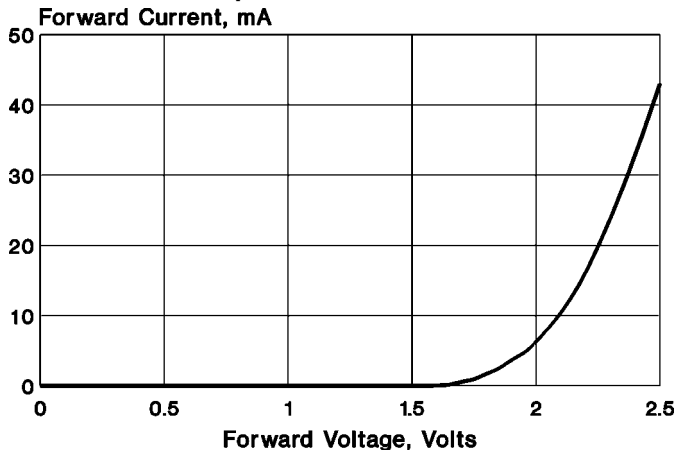
Output Resistance vs. Input Current
VTL5C8



Response Time
VTL5C8



Input Characteristics



Notes:

- At 1.0 mA and below, units may have substantially higher resistance than shown in the typical curves. Consult factory if closely controlled characteristics are required at low input currents.
- Output resistance vs input current transfer curves are given for the following light adapt conditions:
 - 25°C — 24 hours @ no input
 - 25°C — 24 hours @ 40 mA input
 - +50°C — 24 hours @ 40 mA input
 - 20°C — 24 hours @ 40 mA input
- Response time characteristics are based upon test following adapt condition (2) above.