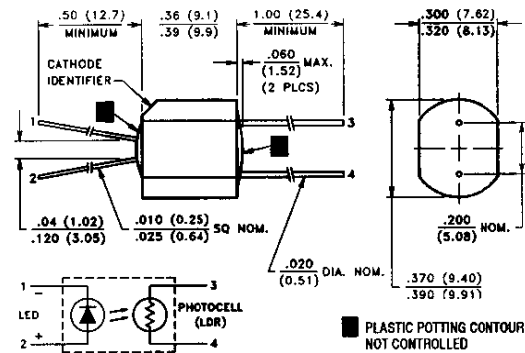


UL Listed File #73887

PACKAGE DIMENSIONS Inch (mm)



DESCRIPTION

VTL5C3 has a steep slope, good dynamic range, a very low temperature coefficient of resistance, and a small light history memory.

VTL5C4 features a very low "on" resistance, fast response time, with a smaller temperature coefficient of resistance than VTL5C1.

ABSOLUTE MAXIMUM RATINGS @ 25°C

Maximum Temperatures
 Storage and Operating: -40°C to 75°C
 Cell Power: 175 mW
 Derate above 30°C: 3.9 mW/°C
 LED Current: 40 mA
 Derate above 30°C: 0.9 mA/°C
 LED Reverse Breakdown Voltage: 3.0 V

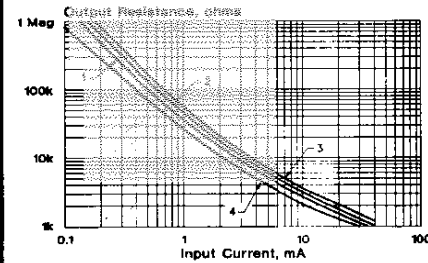
LED Forward Voltage Drop @ 20 mA: 2.0 V (1.65 V typical)
 Min. Isolation Voltage @ 70% Relative Humidity: 2500 VRMS
 Output Cell Capacitance: 5.0 pF
 Cell Voltage: 250 V (VTL5C3), 50 V (VTL5C4)
 Input - Output Coupling Capacitance: 0.5 pF

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C

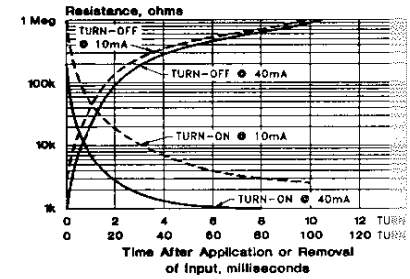
Part Number	Material Type	Output Resistance					Response Time		
		Input Current	Dark Adapted (Typ.)	Light Adapted (Max.)	OFF Resistance @ 10 sec. (Min.)	Slope (Typ.) R @ 5 mA / R @ 5 mA	Dynamic Range (Typ.) R _{Dark} / R @ 20 mA	Turn-on to 63% Final Rom (Typ.)	Turn-off (Decay) to 100 kΩ (Max.)
VTL5C3	3	1 mA 10 mA 40 mA	30 kΩ 5 kΩ 1.5 kΩ	— 2.0 kΩ	10 MΩ	20	75 db	2.5 ms	35 ms
VTL5C4	4	1 mA 10 mA 40 mA	1.2 kΩ 125 Ω 75 Ω	— 200 Ω	400 kΩ	18.7	72 db	6.0 ms	1.5 ms

Typical Performance Curves

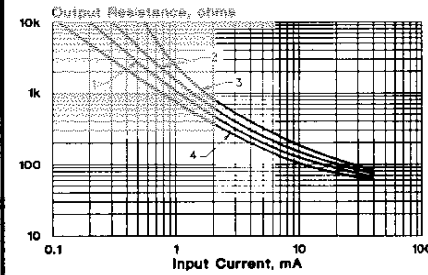
Output Resistance vs Input Current VTL5C3



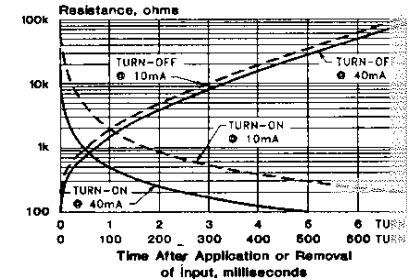
Response Time VTL5C3



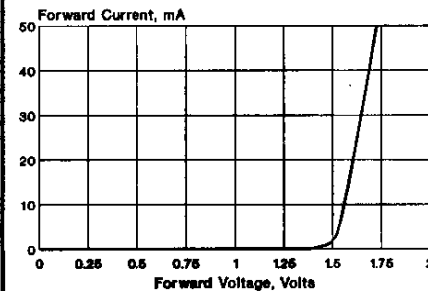
Output Resistance vs Input Current VTL5C4



Response Time VTL5C4



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 or 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 the following adapt condition (2) above.