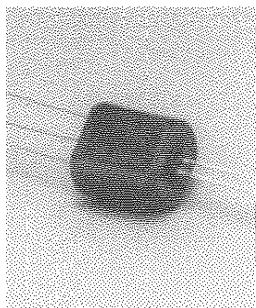
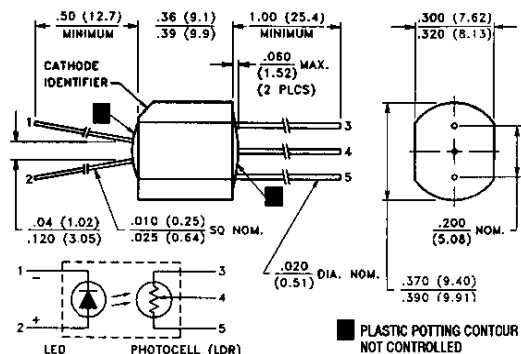


ual Element LED Axial Vactrols VTL5C3/2, 5C4/2



UL Listed File #73887

PACKAGE DIMENSIONS Inch (mm)



DESCRIPTION

VTL5C3/2 has a steep slope, good dynamic range, a very low temperature coefficient of resistance, and a small light history memory.

VTL5C4/2 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
Power: 175 mW
Derate above 30°C: 3.9 mW/°C
Current: 40 mA
Derate above 30°C: 0.9 mA/°C
Reverse Breakdown Voltage: 3.0 V

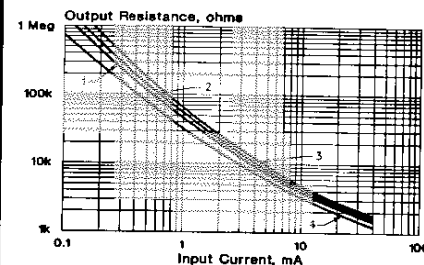
LED Forward Voltage Drop @ 20 mA: 2.0 V (1.65 V typical)
Min. Isolation Voltage @ 70% Relative Humidity: 2500 VRMS
Output Cell Capacitance: 5.0 pF
Cell Voltage: 100 V (VTL5C3/2), 30 V (VTL5C4/2)
Input - Output Coupling Capacitance: 0.5 pF

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (Per Element)

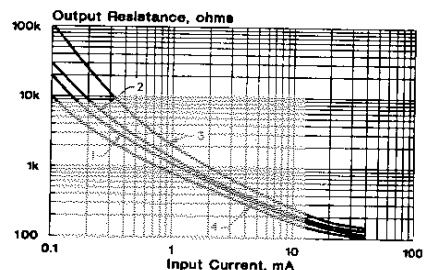
Part Number	Material Type	Output Resistance					Response Time 4		
		ON Resistance 2			OFF 3 Resistance @ 10 sec. (Min.)	Slope (Typ.) R @ .5 mA R @ 5 mA	Dynamic Range (Typ.) $\frac{R_{ON}}{R @ 20 \text{ mA}}$	Turn-on to 63% Final RON (Typ.)	Turn-off (Decay) to 100 kΩ (Max.)
		Input Current	Dark Adapted (Typ.)	Light Adapted (Max.)					
TL5C3/2	3	1 mA 40 mA	55 kΩ 2 kΩ	— 3 kΩ	10 MΩ	19	71 db	3.0 ms	50 ms
TL5C4/2	4	1 mA 10 mA	1.5 kΩ 150 Ω	— 500 Ω	400 kΩ	8.3	68 db	6.0 ms	1.5 sec

Typical Performance Curves (Per Element)

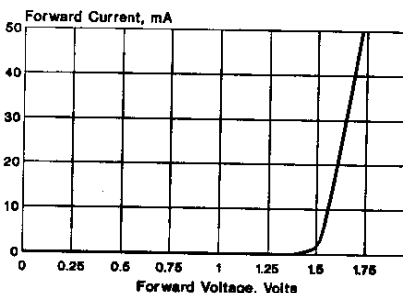
Output Resistance vs Input Current VTL5C3/2



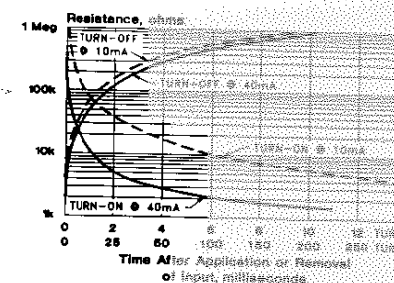
Output Resistance vs Input Current VTL5C4/2



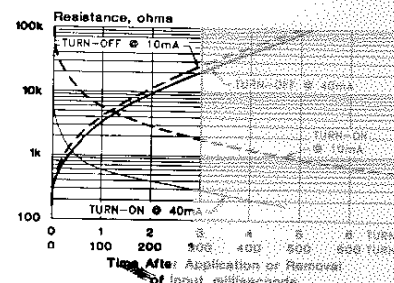
Input Characteristics



Response Time VTL5C3/2



Response Time VTL5C4/2



Notes:

- At 1.0 mA and below, units may have substantially higher resistance than shown in the typical curve. 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.