OC 150G

Original Released: 03-20-09
Revised Date: 01-17-11

Opto Coupler • Axial Leaded • Epoxy Molded

ABSOLUTE MAXIMUM RATINGS

LED

• Forward DC Current	100 mA
• Surge Current	500 mA
• Reverse Voltage	5 V
• Power Dissipation (25℃)	190 mW

Photodiode

• Reverse Voltage	15,000 V
• Power Dissipation	1.0 W

• Storage Temperature	-40℃ to +100℃
• Operating Temperature	-40℃ to +70℃
• Isolation Test Voltage	25 kV (From Pins 1, 2, 3 & 4 to Pins 5 & 6)

ELECTRICAL CHARACTERISTICS

LED

• Forward Voltage (If = 20 mA)	1.5 V
• Reverse Leakage Current VR = 5 V	100nA

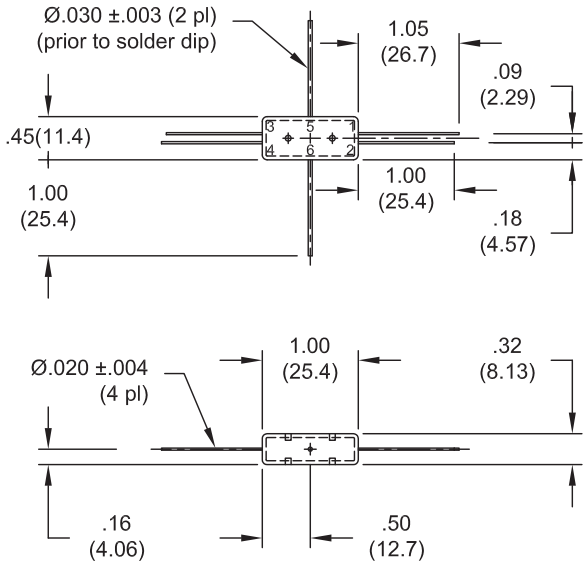
Photodiode

• Foward Voltage (If = 0.3 A)	18.0 V MAX
• Reverse Leakage Current	
VR = 10 kV, I_{LED} = 0 mA	250 nA Typical
VR = 10 kV, I_{LED} = 50 mA	150 µA Typical

Coupled

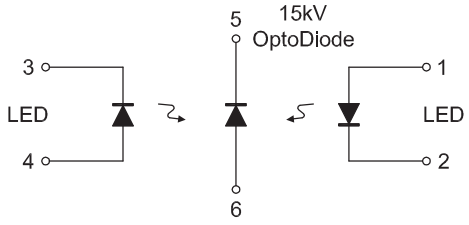
• DC Current Transfer Ratio (I_{LED} = 50 mA, VR = 10kV)	0.20% MIN
• t_{ON} (Typical)	2 µs
• t_{OFF} (Typical)	2 µs

(25℃ UNLESS OTHERWISE NOTED)



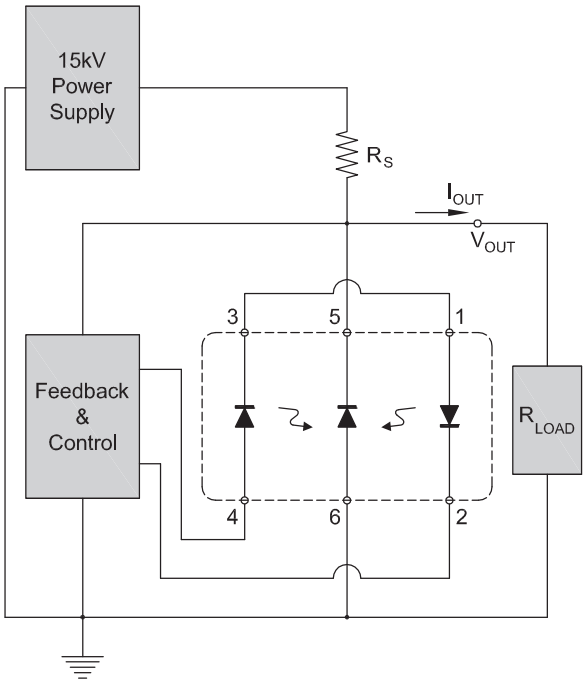
Tolerance:
.XX ±.020

Simplified Circuit Schematic



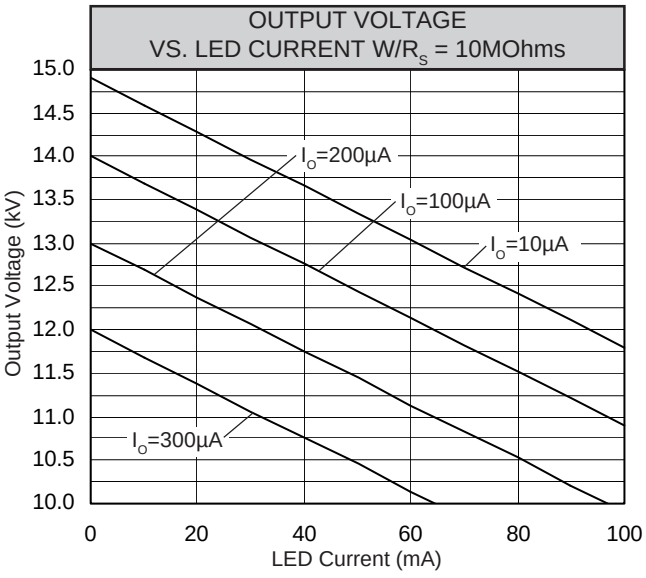
Dimensions: In. (mm) • All temperatures are ambient unless otherwise noted. • Data subject to change without notice.

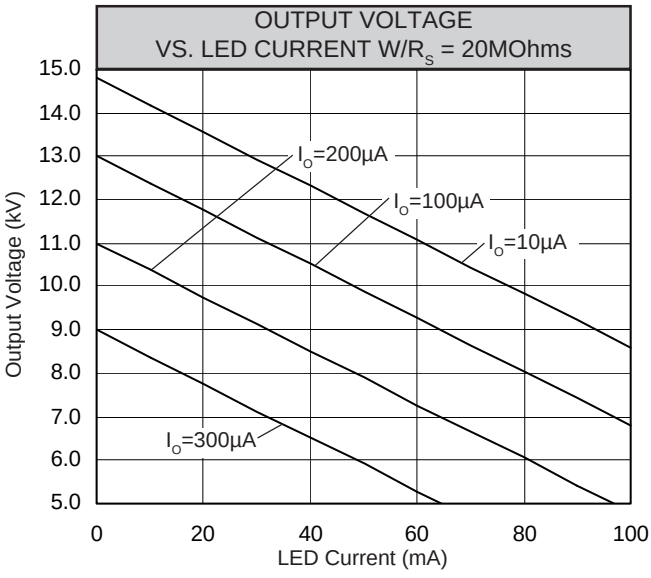
Voltage Multipliers Inc.
8711 W. Roosevelt Ave.
Visalia, CA 93291 USA
Tel: 559.651.1402
Fax: 559.651.0740
www.voltagemultipliers.com
www.highvoltagepowersupplies.com



Typical HV Linear Regulator Circuit

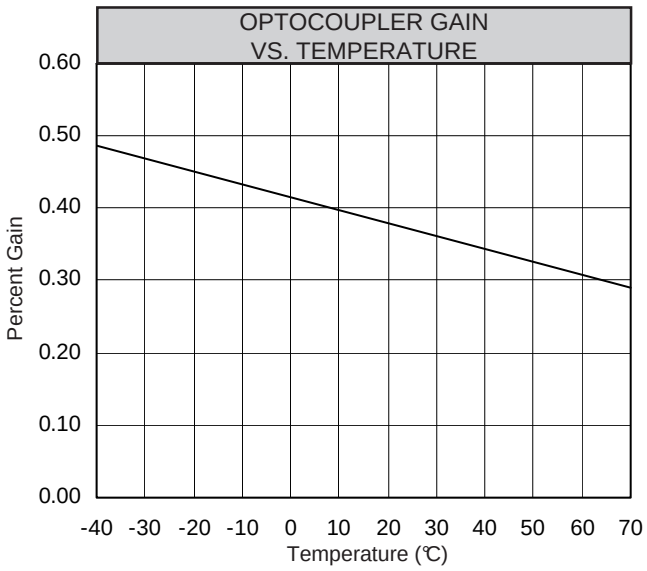
- The two graphs below represent the relationship between output voltage and LED current with different values of R_S.
- Output voltage is found by the following formula:
  $V_{OUT} = V_{IN} - \{[I_{OUT} + (I_{LED} * Gain)] * R_S\}$
- Select resistor value R_S to optimize circuit for V_{OUT} and I_{OUT} range.

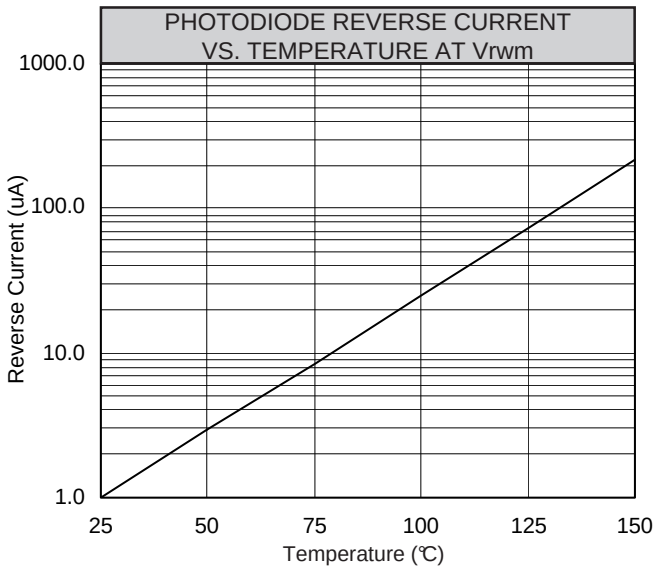


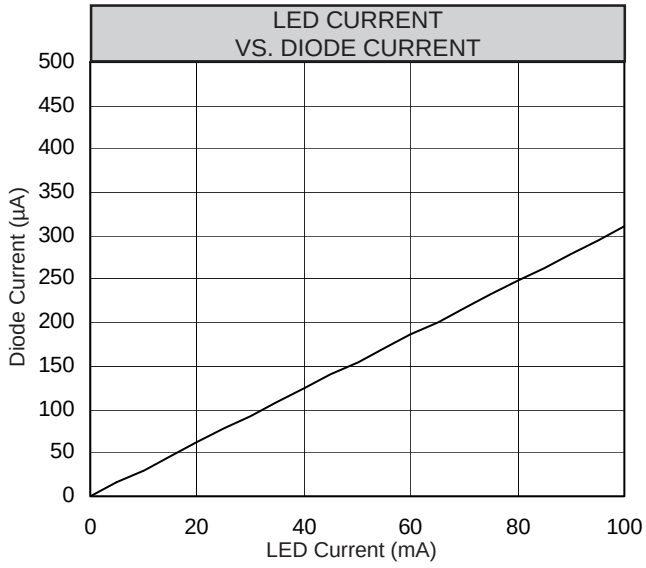


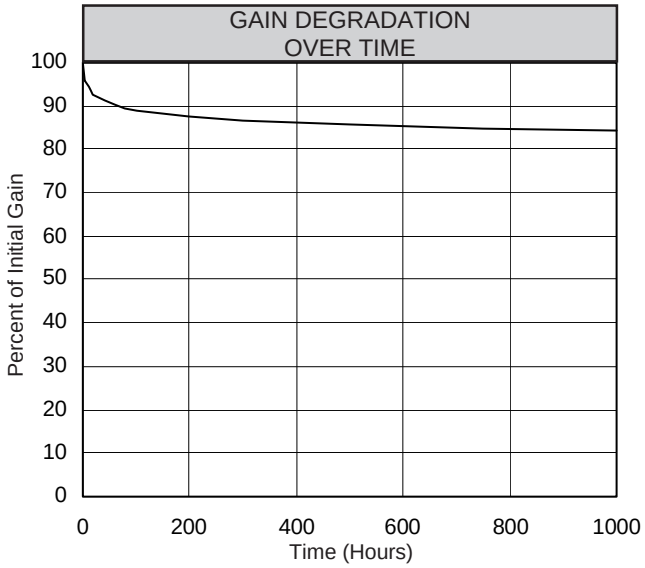
Dimensions: In. (mm) • All temperatures are ambient unless otherwise noted. • Data subject to change without notice.

Voltage Multipliers Inc.
8711 W. Roosevelt Ave.
Visalia, CA 93291 USA
Tel: 559.651.1402
Fax: 559.651.0740
www.voltagemultipliers.com
www.highvoltagepowersupplies.com









Voltage Multipliers Inc.
8711 W. Roosevelt Ave.
Visalia, CA 93291 USA
Tel: 559.651.1402
Fax: 559.651.0740
www.voltagemultipliers.com
www.highvoltagepowersupplies.com