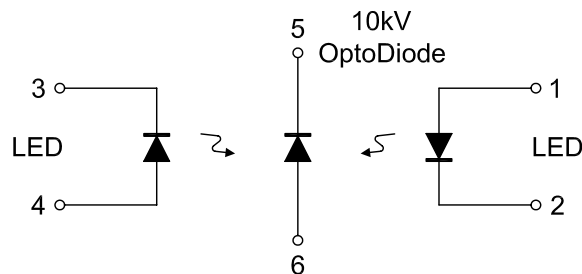
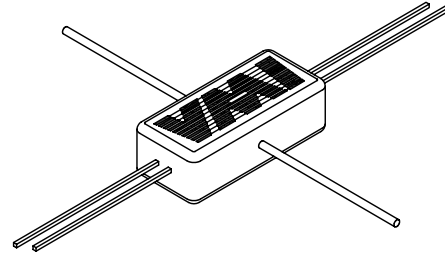


# Opto Coupler

# OC100HG

- High Current Gain
- High Isolation Voltage
- RoHS Compliant



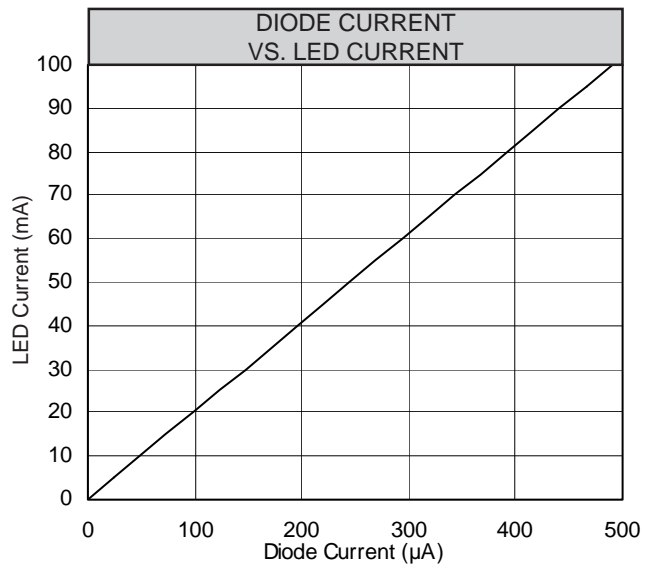
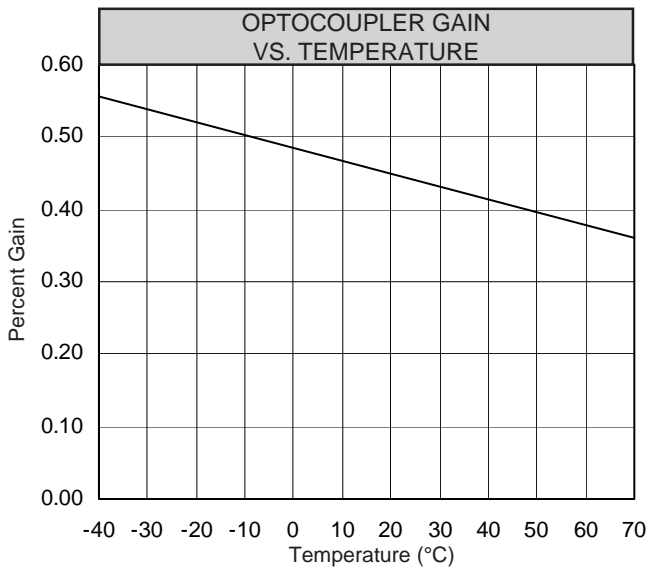
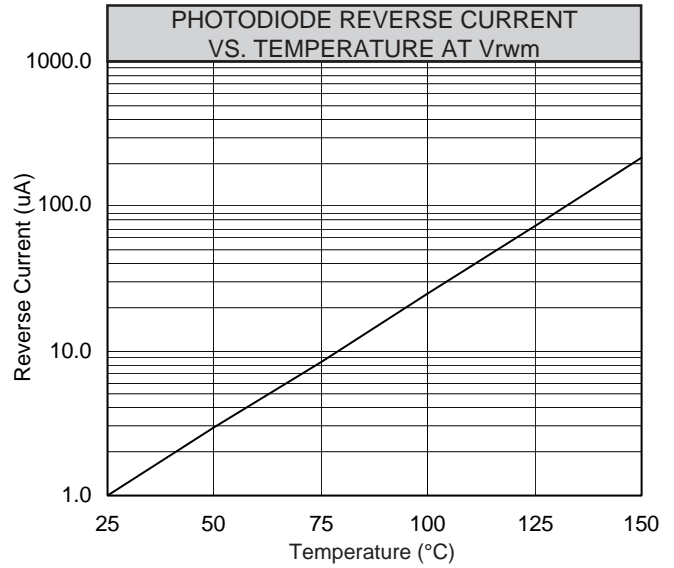
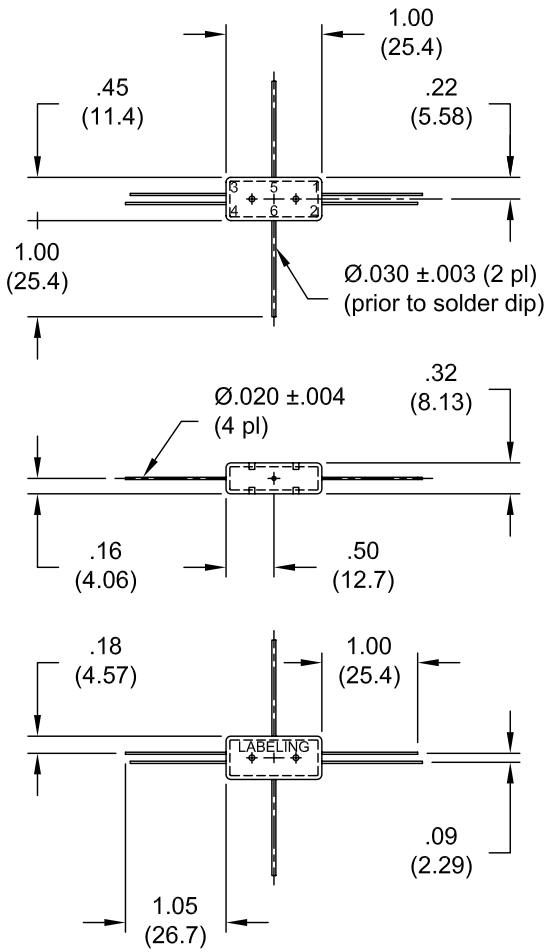
ABSOLUTE MAXIMUM RATINGS		ELECTRICAL CHARACTERISTICS	
<b>LED</b>		<b>LED</b>	
• Forward DC Current	100 mA	• Forward Voltage (If = 20 mA)	1.5 V
• Surge Current	500 mA	• Reverse Leakage Current	100 nA
• Reverse Voltage	5 V	VR = 5 V	
• Power Dissipation (25°C)	190 mW	<b>Photodiode</b>	
<b>Photodiode</b>		• Forward Voltage (If = 0.6 A)	12.0 V MAX
• Reverse Voltage	10,000 V	• Reverse Leakage Current	
• Power Dissipation	1.0 W	VR = 10 kV, I <sub>LED</sub> = 0 mA	250 nA Typical
<hr/>		VR = 10 kV, I <sub>LED</sub> = 50 mA	230 µA Typical
• Storage Temperature	-40°C to +100°C	<b>Coupled</b>	
• Operating Temperature	-40°C to +70°C	• DC Current Transfer Ratio	0.38% MIN / 0.60% MAX
• Isolation Test Voltage	25 kV (From Pins 1, 2, 3 & 4 to Pins 5 & 6)	• T <sub>ON</sub>	2 µs
		• T <sub>OFF</sub>	2 µs
		(25°C UNLESS OTHERWISE NOTED)	



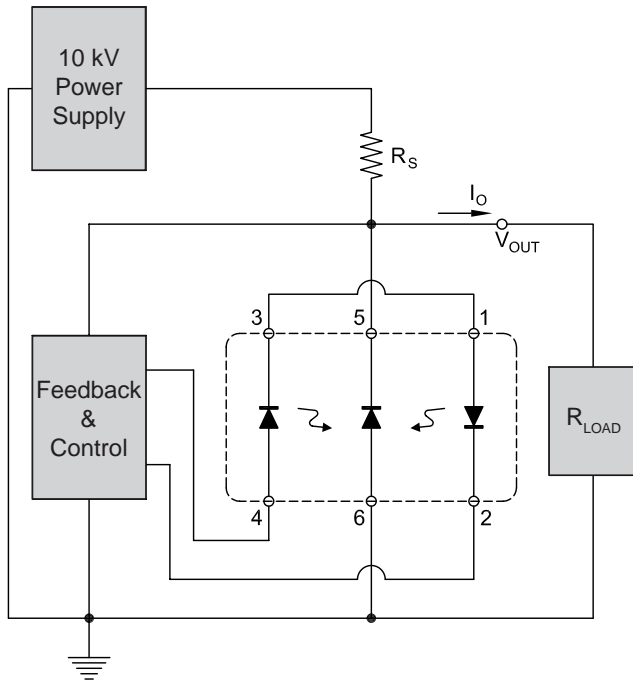
**VOLTAGE MULTIPLIERS INC.**  
8711 W. Roosevelt Ave.  
Visalia, CA 93291

TEL 559-651-1402  
FAX 559-651-0740  
www.voltagemultipliers.com

# OC100HG



# OC100HG



## 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 to optimize circuit for  $V_{OUT}$  and  $I_{OUT}$  range.

