

Electrical Specifications ($-40^{\circ}\text{C} \leq T_A \leq +85^{\circ}\text{C}$ unless otherwise specified)

INPUT CHARACTERISTICS	PVT412L	PVT412	Units
Minimum Control Current (see figure 1 and 2)	3.0		mA
Maximum Control Current for Off-State Resistance	0.4		mA
Control Current Range (Caution: current limit input LED, see figure 6)	3.0 to 25		mA
Maximum Reverse Voltage	6.0		V

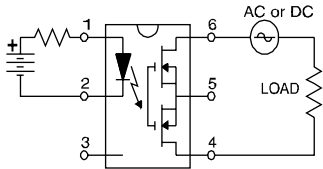
OUTPUT CHARACTERISTICS	PVT412L	PVT412	Units
Operating Voltage Range	0 to ± 400		V (DC or AC peak)
Maximum Load Current @ $T_A=+40^{\circ}\text{C}$ 5mA Control (see figure 1 and 2)			
A Connection	120	140	mA (AC or DC)
B Connection	130	150	mA (DC)
C Connection	200	210	mA (DC)
Maximum On-State Resistance @ $T_A=+25^{\circ}\text{C}$ For 50mA Pulsed Load, 5mA Control (see figures 4)			
A Connection	35	27	Ω
B Connection	18	14	Ω
C Connection	9	7	Ω
Maximum Off-State Leakage @ $T_A=+25^{\circ}\text{C}$, $\pm 400\text{V}$ (see figure 5)	1.0		μA
Current Limit @ $T_A=+25^{\circ}\text{C}$, For 5mA Control Current:			
Connection:	A	C	-
Maximum	130	260	n / a
Minimum	220	440	n / a
Complies with FCC Part 68 Surge Requirements*	yes	yes	
Maximum Turn-On Time @ $T_A=+25^{\circ}\text{C}$ (see figures 7) For 50mA, 100 Vdc load, 5mA Control	2.0		ms
Maximum Turn-Off Time @ $T_A=+25^{\circ}\text{C}$ (see figures 7) For 50mA, 100 Vdc load, 5mA Control	0.5		ms
Maximum Thermal Offset Voltage @ 5mA Control	0.5		μV
Maximum Output Capacitance @ 50Vdc	12		pF

GENERAL CHARACTERISTICS	Limits	Units
Minimum Dielectric Strength, Input-Output	4000	V_{RMS}
Minimum Insulation Resistance, Input-Output @ $T_A=+25^{\circ}\text{C}$, 50%RH, 100 Vdc	10^{12}	Ω
Maximum Capacitance, Input-Output	1.0	pF
Maximum Pin Soldering Temperature (10 seconds maximum)	+260	
Ambient Temperature Range:		$^{\circ}\text{C}$
Operating	-40 to +85	
Storage	-40 to +100	

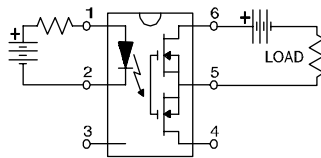
International Rectifier does not recommend the use of this product in aerospace, avionics, military or life support applications. Users of this International Rectifier product in such applications assume all risks of such use and indemnify International Rectifier against all damages resulting from such use.

Connection Diagrams

"A" Connection



"B" Connection



"C" Connection

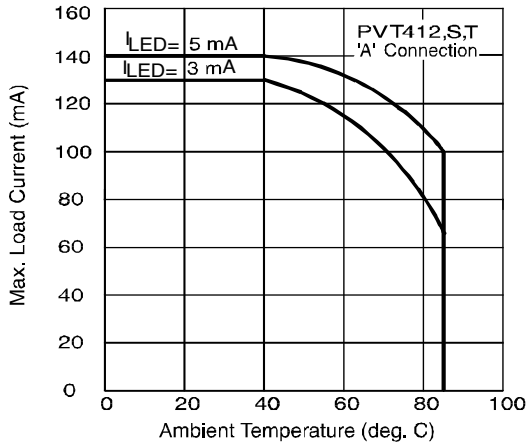
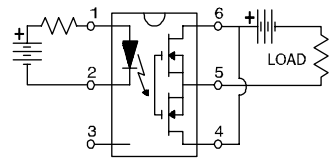


Figure 1. Current Derating Curves*

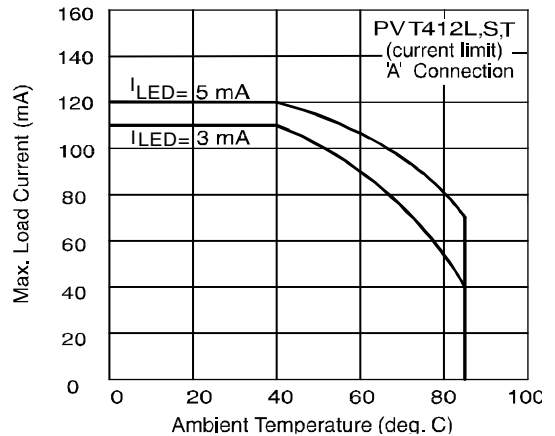


Figure 2. Current Derating Curves*

* Derating of 'B' and 'C' connection at +85 C will be 70% of that specified at +40 C and is linear from +40 C to +85 C.

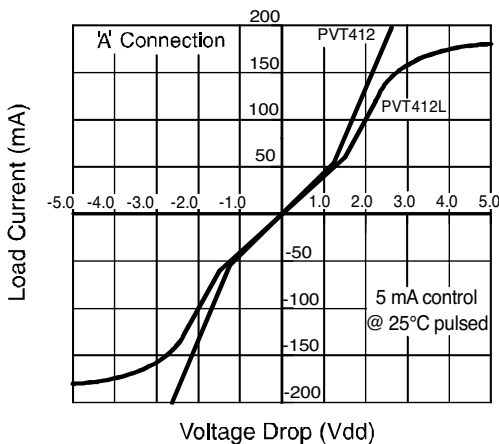


Figure 3. Linearity Characteristics

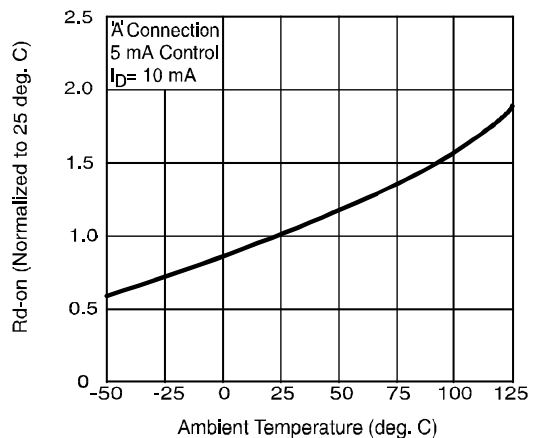


Figure 4. Typical Normalized On-Resistance

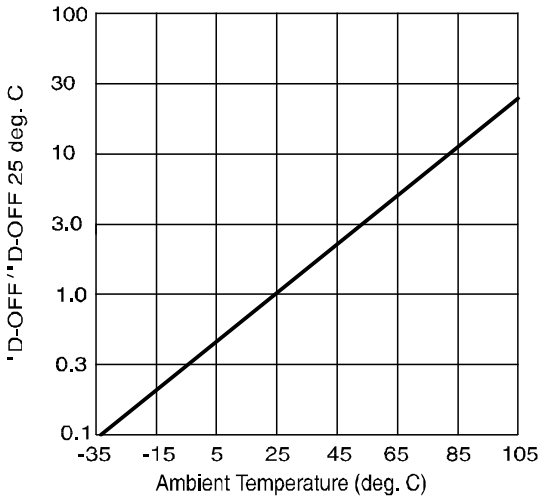


Figure 5. Typical Normalized Off-State Leakage

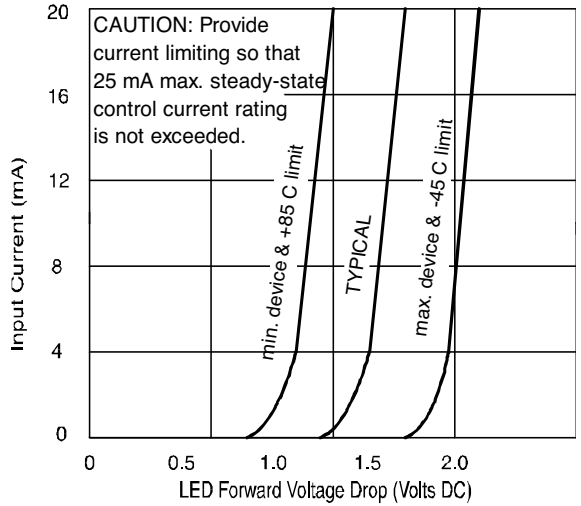


Figure 6. Input Characteristics (Current Controlled)

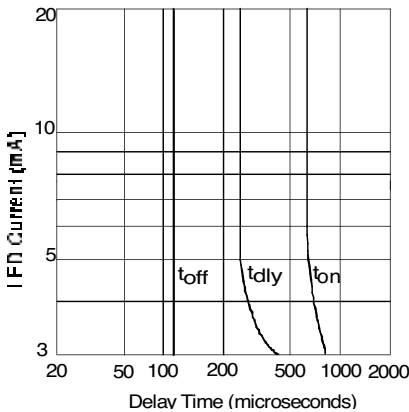


Figure 7. Typical Delay Time

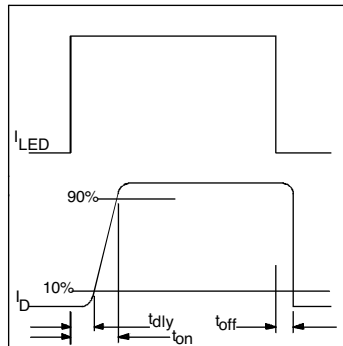


Figure 8. Delay Time Definitions

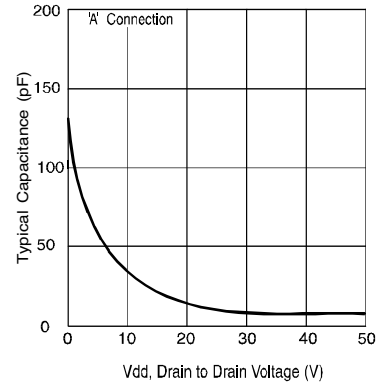


Figure 9. Typical Output Capacitance

Case Outlines

