Electrical Specifications (-40°C ≤ T_A ≤ +85°C unless otherwise specified)

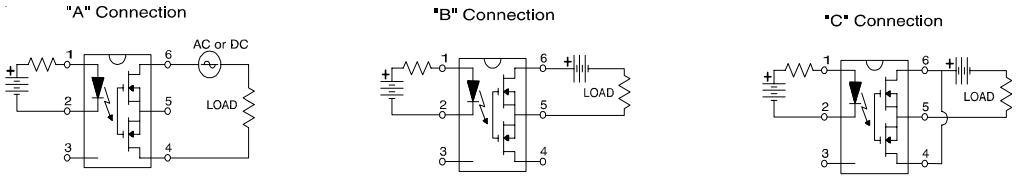
INPUT CHARACTERISTICS	Part Numbers		Units
	PVT412L	PVT412	
Minimum Control Current (see figures 1 and 2)	3.0		mA
Maximum Control Current for Off-State Resistance	0.4		mA
Control Current Range (Caution: current limit input LED, see figure 6)	3.0 to 25		mA
Maximum Reverse Voltage	6.0		V

OUTPUT CHARACTERISTICS	PVT412L	PVT412	
Operating Voltage Range	0 to ±400		$V_{(DC\ or\ AC\ peak)}$
Maximum Load Current @ T_A=+40°C 5mA Control (see figures1 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°C For 50mA Pulsed Load, 5mA Control (see figure 4)			
A Connection	35	27	Ω
B Connection	18	14	Ω
C Connection	9	7	Ω
Maximum Off-State Leakage @T_A=+25°C, ±400V (see figure 5)	1.0		µA
Current Limit @T_A=+25°C, For 5mA Control Current:			
Connection:	**A**	**C**	
Minimum	130	260	n/a mA
Maximum	220	440	n/a mA
Complies with FCC Part 68 Surge Requirements*	yes		yes
Maximum Turn-On Time @T_A=+25°C (see figure 7) For 50mA, 100 V_{DC} load, 5mA Control	2.0		ms
Maximum Turn-Off Time @T_A=+25°C (see figure 7) For 50mA, 100 V_{DC} load, 5mA Control	0.5		ms
Maximum Thermal Offset Voltage @ 5mA Control	0.5		µV
Maximum Output Capacitance @ 50V_{DC}	12		pF

GENERAL CHARACTERISTICS		ALL MODELS	
Minimum Dielectric Strength, Input-Output		4000	V_{RMS}
Minimum Insulation Resistance, Input-Output @T_A=+25°C, 50%RH, 100V_{DC}		10^{12}	Ω
Maximum Capacitance, Input-Output		1.0	pF
Maximum Pin Soldering Temperature (10 seconds maximum)		+260	°C
Ambient Temperature Range:	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



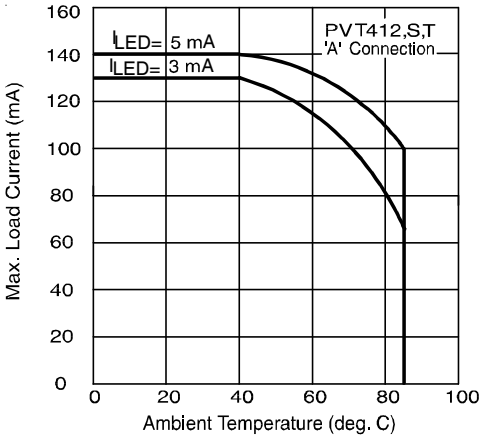


Figure 1. Current Derating Curves*

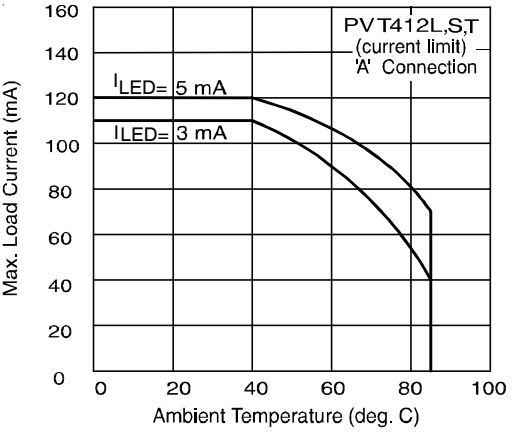


Figure 2. Current Derating Curves*

* 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.

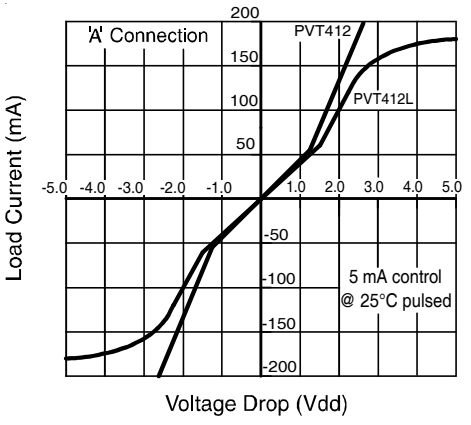


Figure 3. Linearity Characteristics

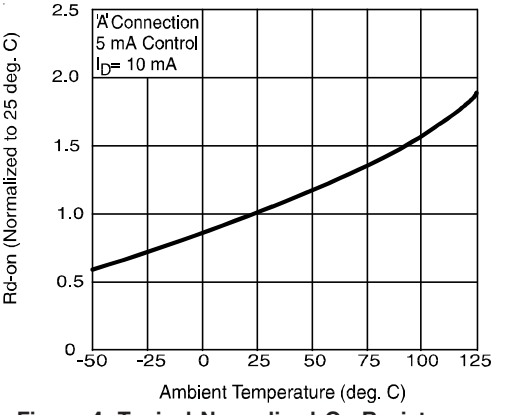


Figure 4. Typical Normalized On-Resistance

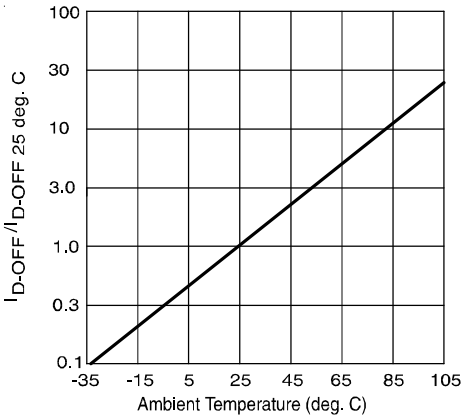


Figure 5. Typical Normalized Off-State Leakage

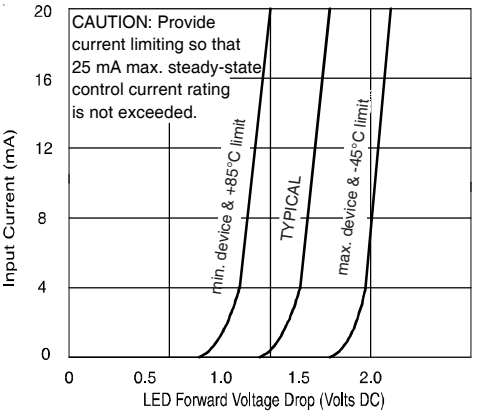


Figure 6. Input Characteristics (Current Controlled)

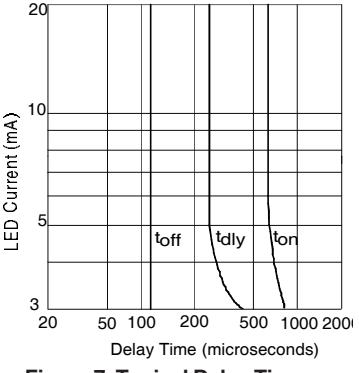


Figure 7. Typical Delay Times

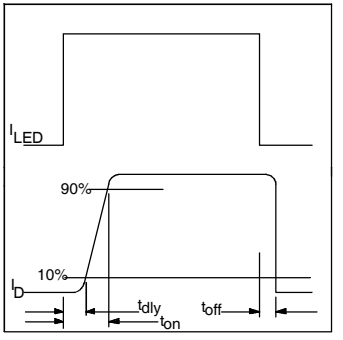


Figure 8. Delay Time Definitions

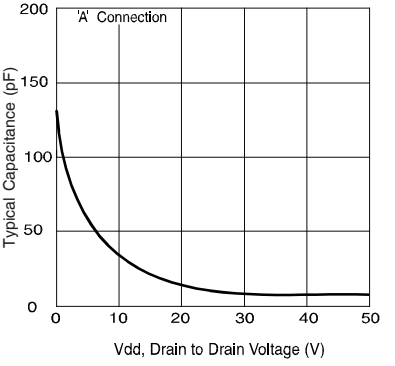
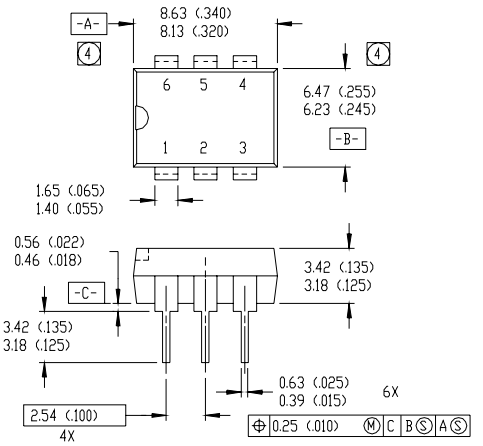
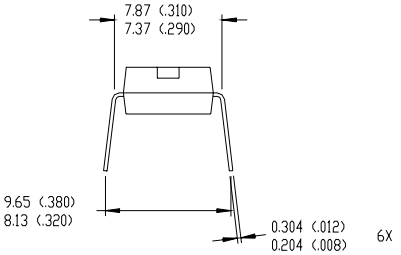


Figure 9. Typical Output Capacitance

Case Outlines



NOTES:
1 DIMENSIONING & TOLERANCING PER ANSI Y14.5M-1982.
2 CONTROLLING DIMENSION: INCH.
3 DIMENSIONS ARE SHOWN IN MILLIMETERS (INCHES).
4 DIMENSION DOES NOT INCLUDE MOLD PROTUSIONS. MOLD PROTUSIONS SHALL NOT EXCEED 0.25 (.010).



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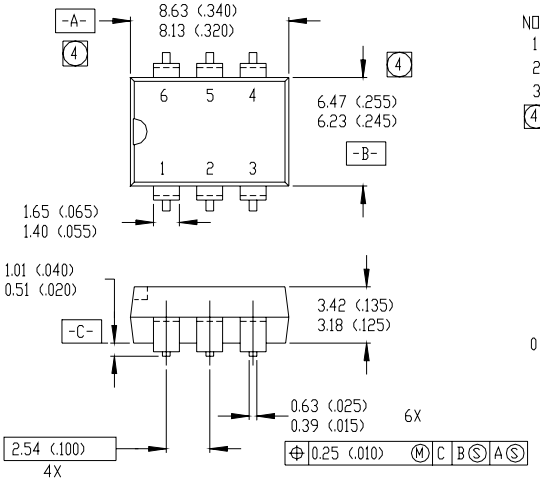

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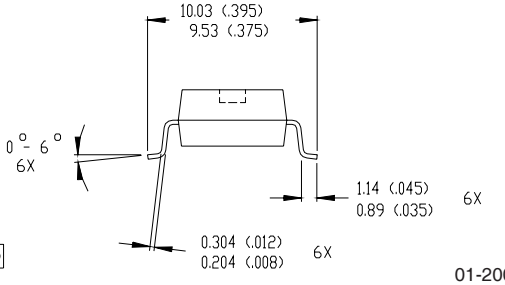

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Note: For the most current drawing please refer to IR website at: http://www.irf.com/package/

Qualification information†

Qualification level	Industrial (per JEDEC JESD47I †† guidelines)	
Moisture Sensitivity Level	PVT412LPbF	N/A
	PVT412PbF	
	PVT412LSPbF	MSL4 (per JEDEC J-STD-020E & JEDEC J-STD-033C ††)
	PVT412LS-TPbF	
	PVT412SPbF	
	PVT412S-TPbF	
RoHS compliant	Yes	

† Qualification standards can be found at International Rectifier's web site: http://www.irf.com/product-info/reliability
†† Applicable version of JEDEC standard at the time of product release

Revision History

Date	Comments
5/18/2015	• Added Qualification Information Table on page 6 • Updated data sheet with new IR corporate template

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