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

INPUT CHARACTERISTICS	Part Numbers		Units
	PVT312L	PVT312	
Minimum Control Current (see figures 1 and 2)	2.0		mA
Maximum Control Current for Off-State Resistance @ T_A=+25°C	0.4		mA
Control Current Range (Caution: current limit input LED, see figure 6)	2.0 to 25		mA
Maximum Reverse Voltage	6.0		V

OUTPUT CHARACTERISTICS				
	PVT312L		PVT312	
Operating Voltage Range	0 to ±250			$V_{(DC\ or\ AC\ peak)}$
Maximum Load Current @ T_A=+40°C, 5mA Control (see figures 1 and 2)				
A Connection	170		190	mA (AC or DC)
B Connection	190		210	mA (DC)
C Connection	300		320	mA (DC)
Maximum On-State Resistance @T_A=+25°C for 50mA pulsed load				
5mA Control (see figure4)				
A Connection	15		10	Ω
B Connection	8		5.5	Ω
C Connection	4.25		3	Ω
Maximum Off-State Leakage @T_A=+25°C, ±250V (see figure 5)	1.0			µA
Current Limit @T_A=+25°C, 5mA Control				
Connection:	A	C		
Minimum	190	330	n/a	mA
Maximum	300	560	n/a	mA
Maximum Turn-On Time @T_A=+25°C (see figure 7) for 50mA, 100 V_{DC} load, 5mA Control	3.0			ms
Maximum Turn-Off Time @T_A=+25°C (See Fig. 6) For 50mA, 100 V_{DC} load, 5mA Control	0.5			ms
Maximum Output Capacitance @ 50V_{DC}	50			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	°C
	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.

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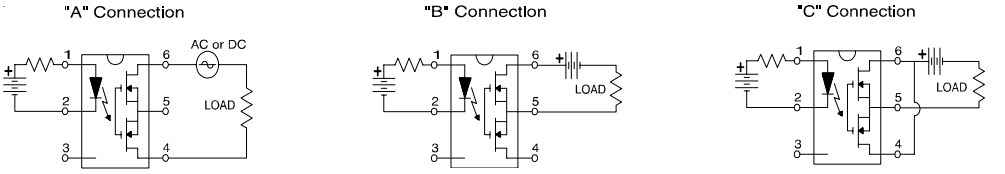
Connection Diagrams



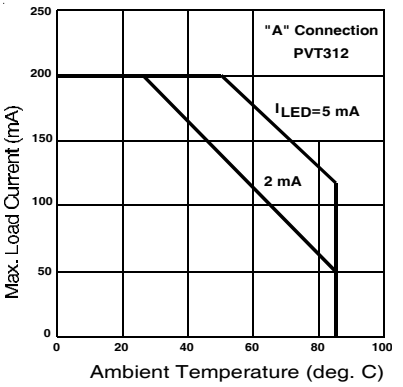


Figure 1. Typical Current Derating Curves

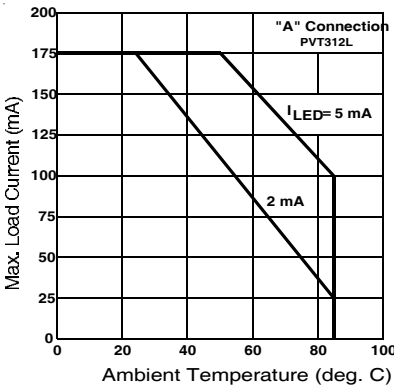


Figure 2. Typical Current Derating Curves

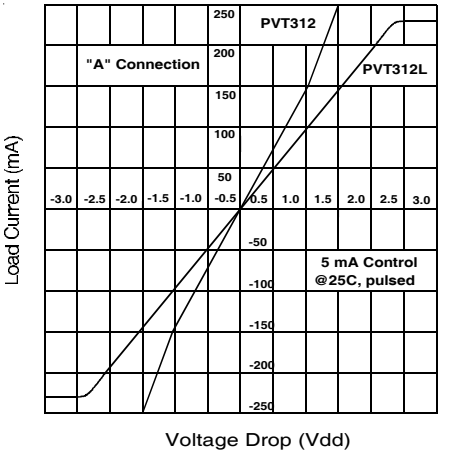


Figure 3. Linearity Characteristics

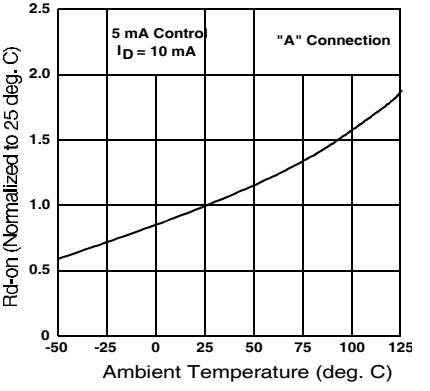


Figure 4. Typical Normalized On-Resistance

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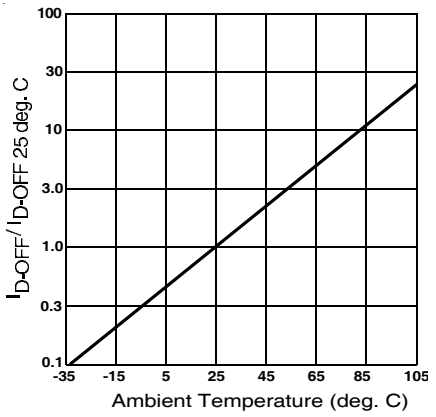

Figure 5. Typical Normalized Off-State Leakage

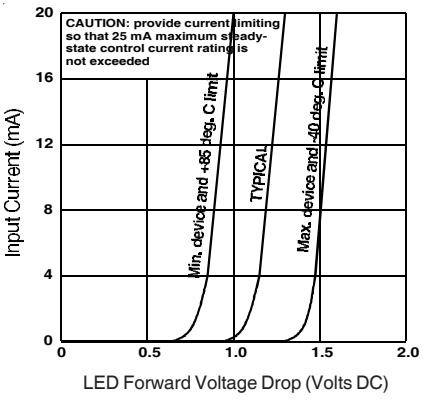

Figure 6. Input Characteristics (Current Controlled)

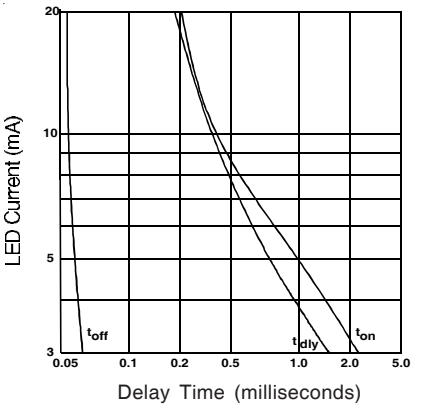

Figure 7. Typical Delay Times

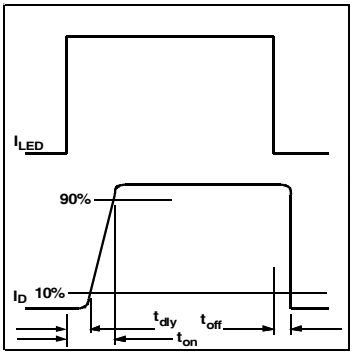

Figure 8. Delay Time Definitions

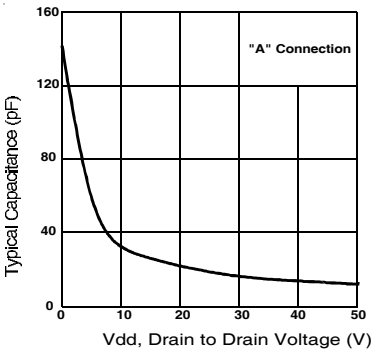

Figure 9. Typical Output Capacitance

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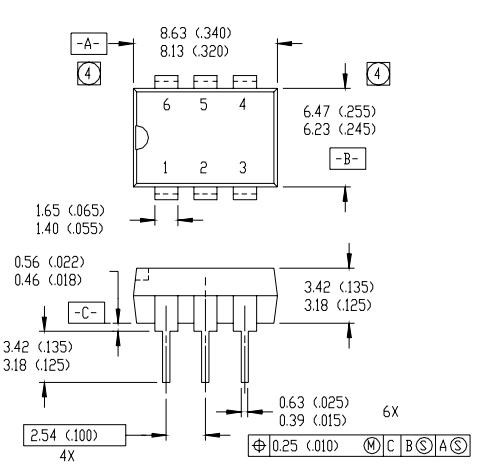
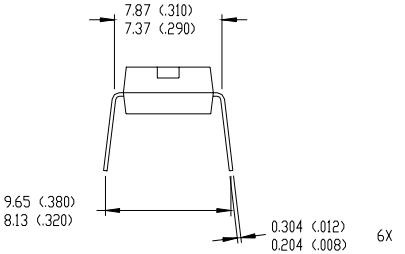
Case Outlines



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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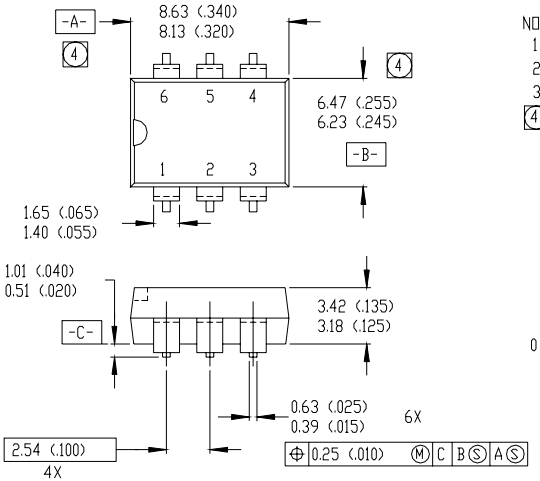

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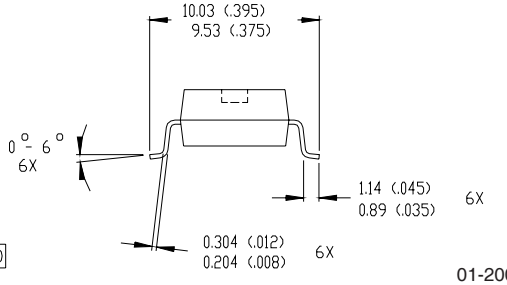

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Note: For the most current drawing please refer to IR website at: http://www.irf.com/package/

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Qualification information†

Qualification level	Industrial (per JEDEC JESD47I †† guidelines)	
Moisture Sensitivity Level	PVT312LPbF	N/A
	PVT312PbF	
	PVT312LSPbF	MSL4 (per JEDEC J-STD-020E & JEDEC J-STD-033C ††)
	PVT312LS-TPbF	
	PVT312SPbF	
	PVT312S-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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