

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

INPUT CHARACTERISTICS	Limits	Units
Minimum Control Current (see figure 1)	3.0	mA
Maximum Control Current for Off-State Resistance @ $T_A = +25^{\circ}\text{C}$	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

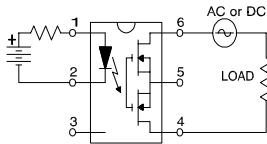
OUTPUT CHARACTERISTICS	Limits	Units
Operating Voltage Range	0 to ± 400	V(DC or AC peak)
Maximum Load Current @ $T_A = +40^{\circ}\text{C}$, 5mA Control (See figure 1)		
A Connection	140	mA (AC or DC)
B Connection	150	mA (DC)
C Connection	210	mA (DC)
Maximum On-State Resistance @ $T_A = +25^{\circ}\text{C}$ For 50mA pulsed load, 5mA Control (see figure 4)		
A Connection	27	Ω
B Connection	14	Ω
C Connection	7	Ω
Minimum Off-State Resistance @ $T_A = +25^{\circ}\text{C}$, $\pm 320\text{V}$ (see figure 5)	10^{10}	Ω
Maximum Turn-On Time @ $T_A = +25^{\circ}\text{C}$ (see figure 7) For 50mA, 100 V _{DC} Load, 5mA Control	500	μs
Maximum Turn-Off Time @ $T_A = +25^{\circ}\text{C}$ (see figure 7) For 50mA, 100 V _{DC} Load, 5mA Control	200	μs
Maximum Thermal Offset Voltage @ 5mA Control	0.2	μV
Maximum Output Capacitance @ 50V _{DC} (see figure 2)	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, 100V _{DC}	10^{12}	Ω
Maximum Capacitance, Input-Output	1.0	pF
Maximum Pin Soldering Temperature (10 seconds maximum)	+260	$^{\circ}\text{C}$
Ambient Temperature Range:		$^{\circ}\text{C}$
Operating	-40 to +85	
Storage	-40 to +100	

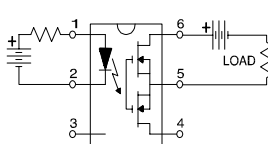
International Rectifier does not recommend the use of this product in aerospace, avionics, military or life support applications. Users of this International Rectifier product in such applications assume all risks of such use and indemnify International Rectifier against all damages resulting from such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

Connection Diagrams

"A" Connection



"B" Connection



"C" Connection

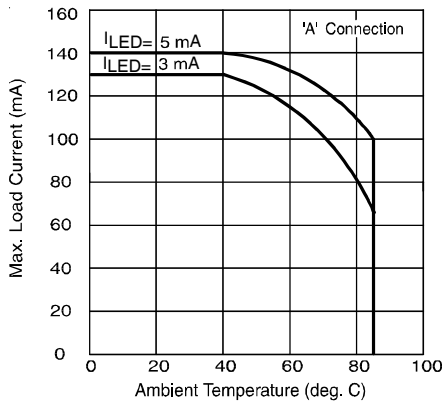
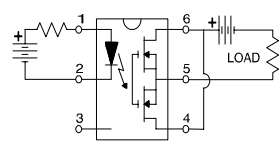


Figure 1. Current Derating Curves

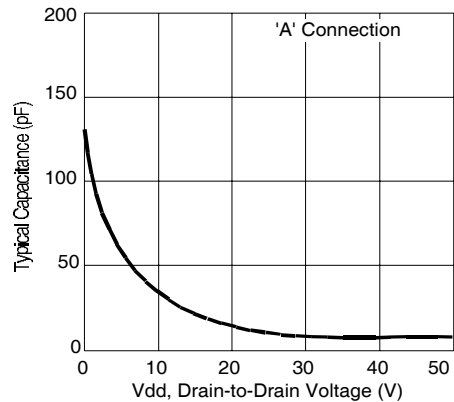


Figure 2. Typical Output Capacitance

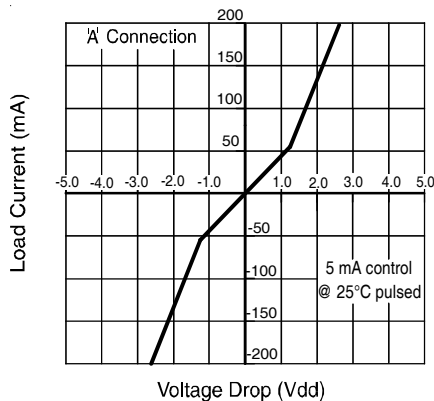


Figure 3. Linearity Characteristics

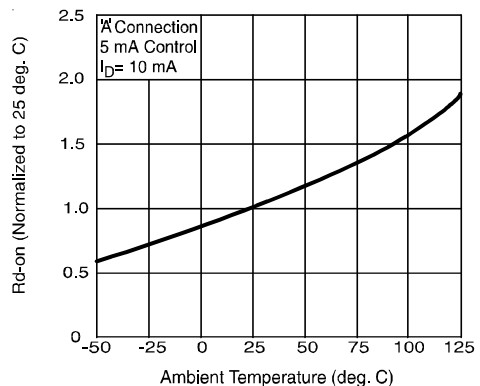


Figure 4. Typical Normalized On-Resistance

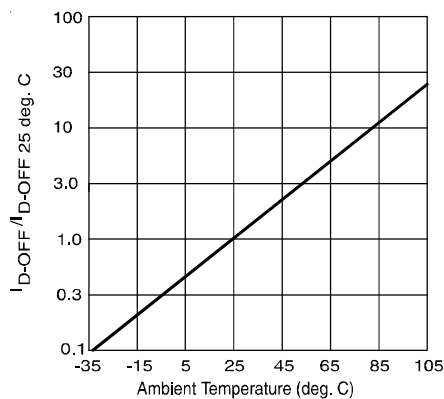


Figure 5. Typical Normalized Off-State Leakage

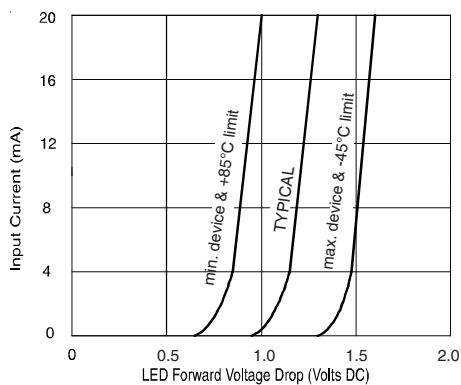


Figure 6. Input Characteristics (Current Controlled)

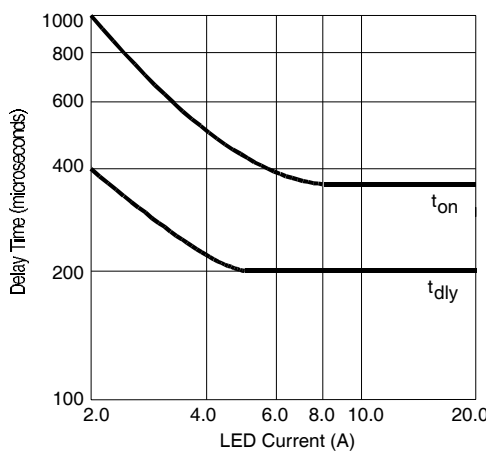


Figure 7. Typical Delay Times

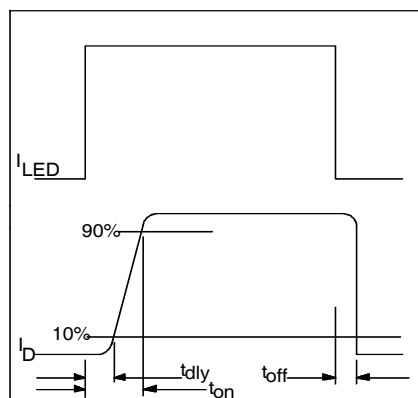
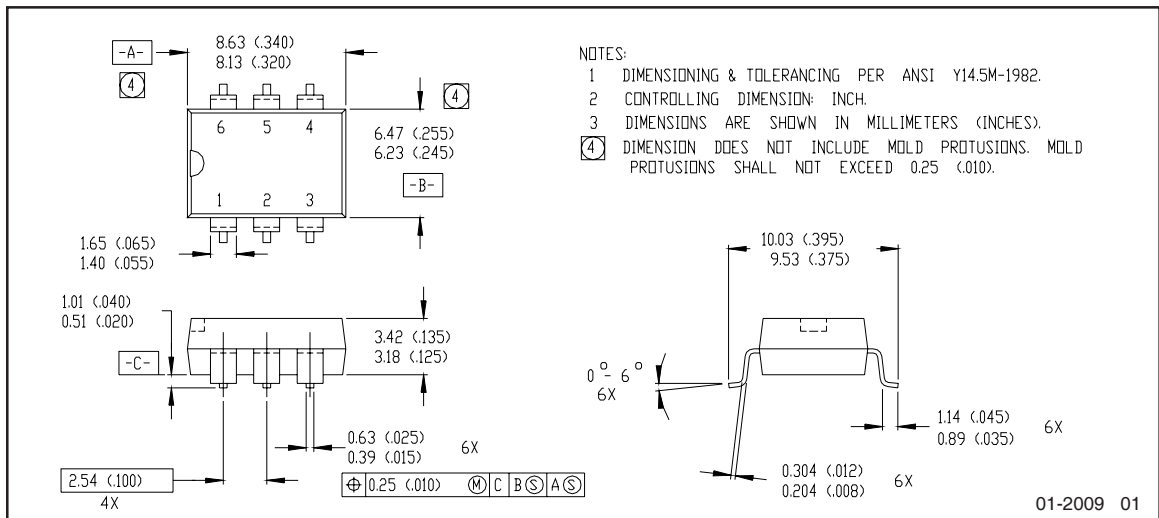
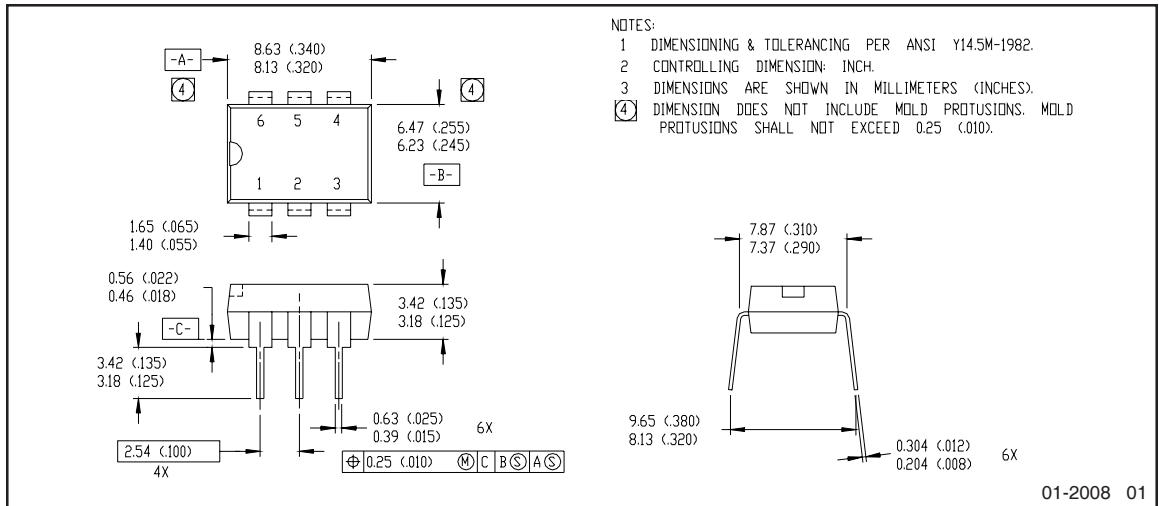


Figure 8. Delay Time Definitions

Case Outlines



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	PVU414PbF	N/A
	PVU414SPbF	MSL4
	PVU414S-TPbF	(per JEDEC J-STD-020E & JEDEC J-STD-033C ^{††})
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
6/2/2015	- Added Qualification Information Table on page 6 - Updated data sheet with new IR corporate template

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Data and specifications subject to change without notice

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