

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)	5.0	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)	5.0 - 25	mA
Maximum Reverse Voltage (1mA max.)	6.0	V

OUTPUT CHARACTERISTICS	Limits	Units
Operating Voltage Range	0 to ± 60	$V_{(\text{DC or AC peak})}$
Maximum Continuous Load Current @ $T_A = +40^{\circ}\text{C}$, 10mA Control (see figure 1)		
A Connection	2.0	A (AC or DC)
B Connection	2.5	A (DC)
C Connection	4.0	A (DC)
Maximum Pulsed Load Current @ $T_A = +25^{\circ}\text{C}$ (100 ms @ 10% Duty Cycle)		
A Connection	7.5	A (AC or DC)
B Connection	8.5	A (DC)
C Connection	15.5	A (DC)
Typical Thermal Resistance ($R_{\theta ja}$, Junction-to-Ambient)		
A Connection	79.1	$(^{\circ}\text{C/W})$
B Connection	112.2	$(^{\circ}\text{C/W})$
C Connection	81.0	$(^{\circ}\text{C/W})$
Maximum On-State Resistance @ $T_A = +25^{\circ}\text{C}$ For 1A pulsed load, 10mA Control (see figure 4)		
A Connection	100	$\text{m}\Omega$
B Connection	50	$\text{m}\Omega$
C Connection	35	$\text{m}\Omega$
Maximum Off-State Leakage @ 60V, $T_A = +25^{\circ}\text{C}$	1.0	μA
Maximum Turn-On Time @ $T_A = +25^{\circ}\text{C}$ (see figures 7 & 8) For 500mA, 50V _{DC} load, 10mA Control, 10mS pulse width	3.5	ms
Maximum Turn-Off Time @ $T_A = +25^{\circ}\text{C}$ (see figures 7 & 8) For 500mA, 50V _{DC} load, 10mA Control, 10mS pulse width	0.5	ms
Typical Output Capacitance @ $V_{dd}=50\text{V}$, $f=1\text{MHz}$ (see figure 2)	105	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	
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

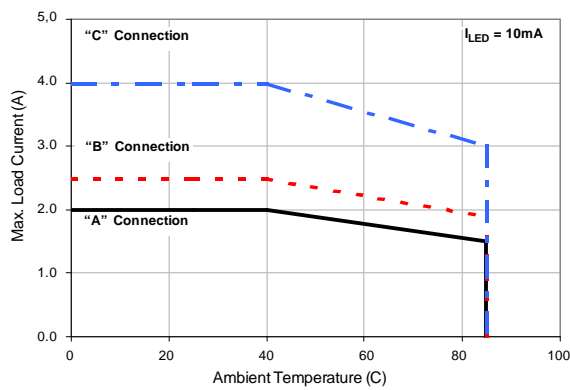
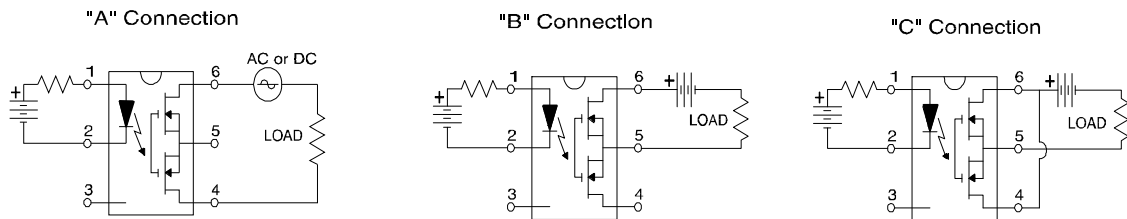


Figure 1. Current Derating Curves

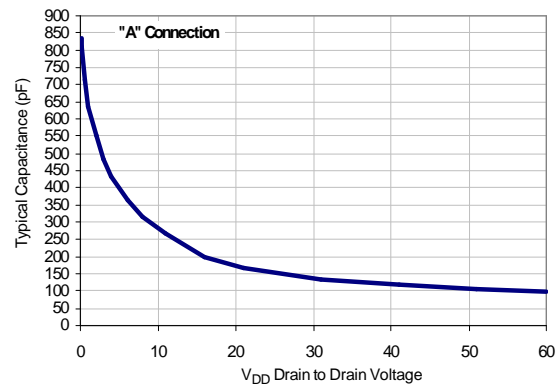


Figure 2. Typical Output Capacitance

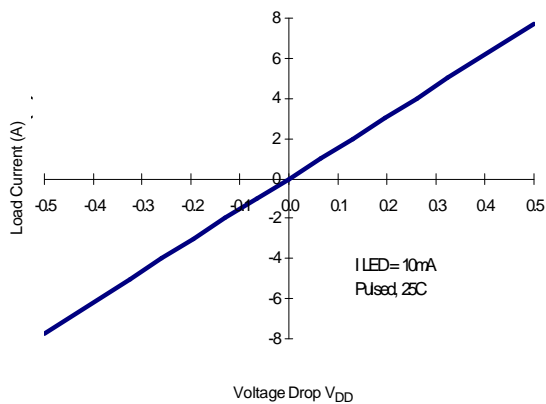


Figure 3. Typical Linearity Characteristics

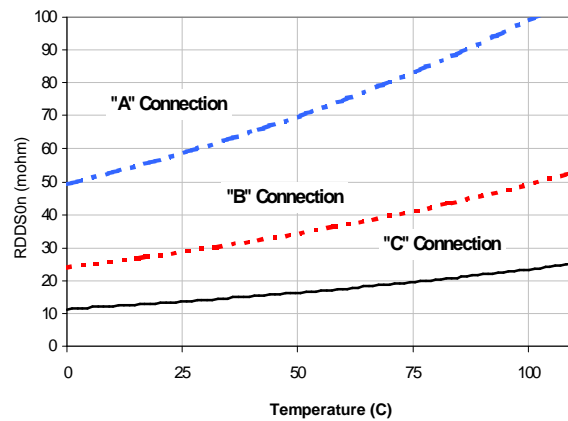


Figure 4. Typical Normalized On-Resistance

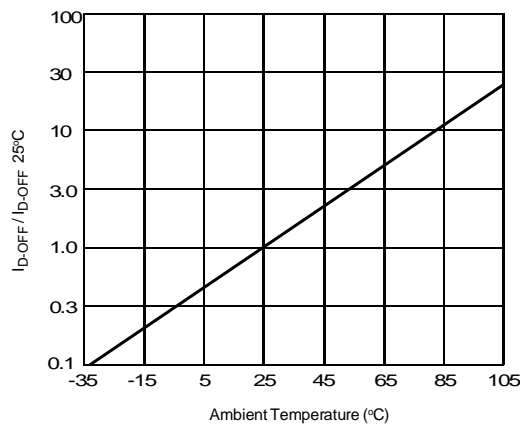


Figure 5. Typical Normalized Off-State Leakage

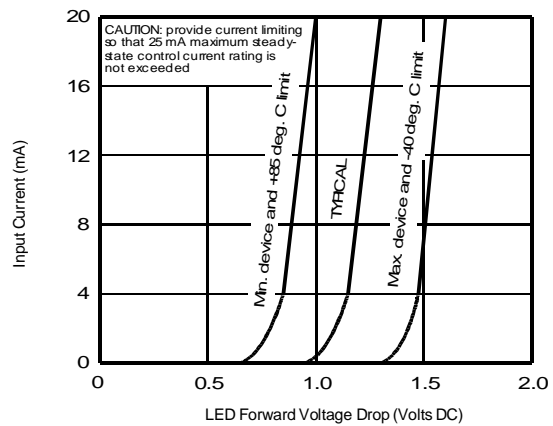


Figure 6. Input Characteristics (Current Controlled)

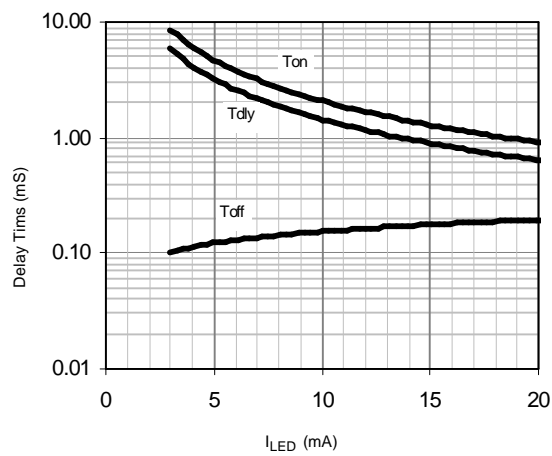


Figure 7. Typical Delay Times

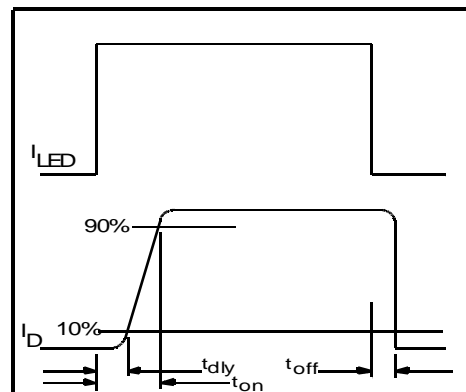


Figure 8. Delay Time Definitions

Case Outlines

