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

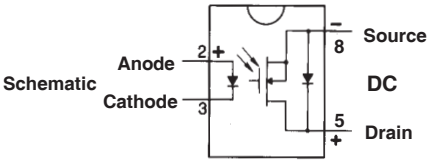
INPUT CHARACTERISTICS	Limits	Units
Minimum Control Current (see figures 1 and 2)	10	mA
Maximum Control Current for Off-State Resistance @ T_A=+25°C	0.4	mA
Control Current Range (Caution: Current limit input LED, see figure 6)	5.0 to 25	mA
Maximum Reverse Voltage	6.0	V

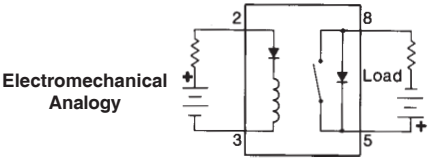
OUTPUT CHARACTERISTICS		Units
Operating Voltage Range	0 to 60	V(DC)
Maximum Load Current 40°C (see figures 1 and 2)	1.5	A(DC)
Maximum Pulsed Load Current @T_A=+25°C (100 ms @ 10% duty cycle)	4.0	A(DC)
Maximum Turn-On Time @TA=+25°C (see figure 7) For 500mA, 50V_{DC} Load, 10mA Control	2.0	ms
Maximum Turn-Off Time @T_A=+25°C (see figure 7) For 500mA, 50V_{DC} Load, 10mA Control	0.5	ms
Maximum On State Resistance @T_A=+25°C(pulsed) (see figure 4) 1.0A load, 10mA Control	250	mΩ
Minimum Off State Resistance @T_A=+25°C @ 48 V_{DC} (see figure 5)	10^8	Ohms
Minimum Off-State dv/dt	1000	V/µs
Output Capacitance (see figure 9)	150	pF @ 50 VDC

GENERAL CHARACTERISTICS		Limits	Units
Dielectric Strength, Input-Output		4000	$V_{(RMS)}$
Insulation Resistance, Input-Output , 90 V_{DC}		10^{12} @T_A=+25°C - 50% RH	Ω
Capacitance, Input-Output		1.0	pF
Lead Temperature (1.6mm below seating plane) for 10 seconds		+260	°C
Ambient Temperature Range:	Operating	-40 to +85	°C
	Storage	-40 to +100	°C

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.

Wiring Diagrams





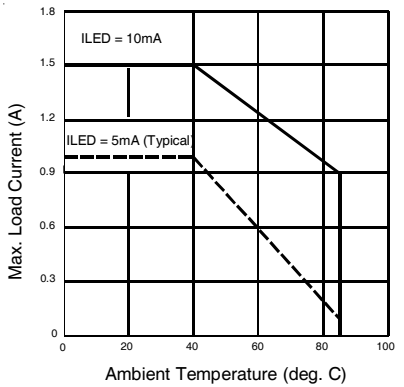


Figure 1. Current Derating Curves

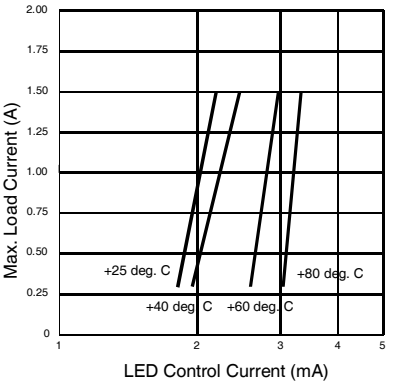


Figure 2. Typical Control Current Requirements

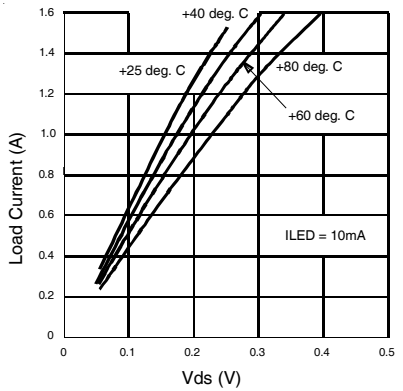


Figure 3. Typical On-Characteristics

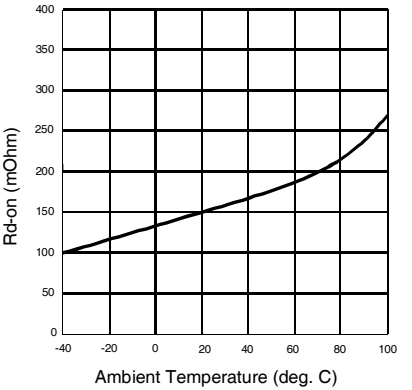


Figure 4. Typical On-Resistance

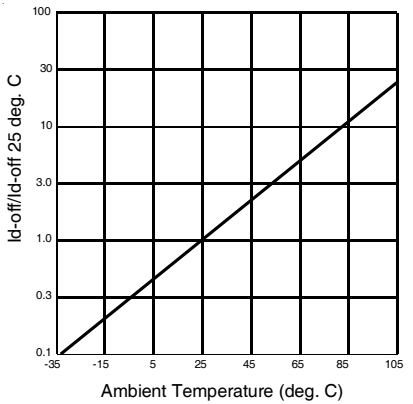


Figure 5. Typical Normalized Off-State Leakage

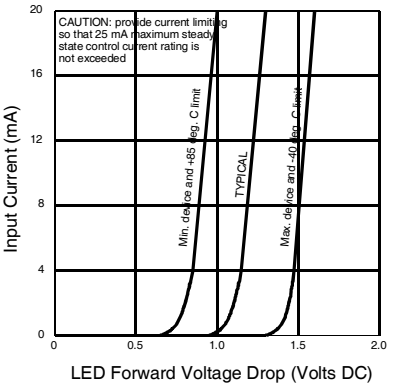


Figure 6. Input Characteristics (Current Controlled)

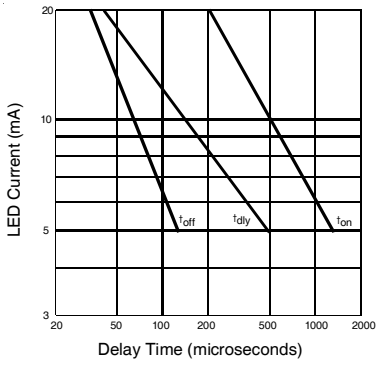


Figure 7. Typical Delay Times

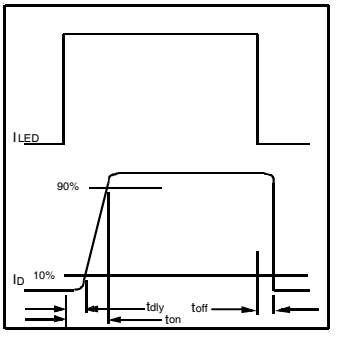


Figure 8. Delay Time Definitions

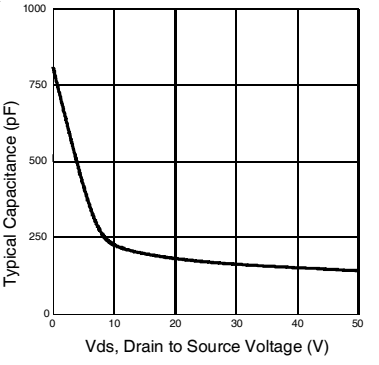
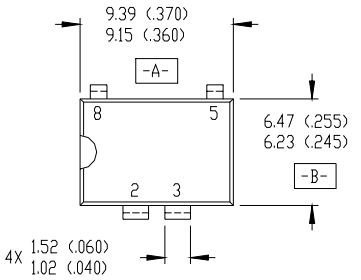
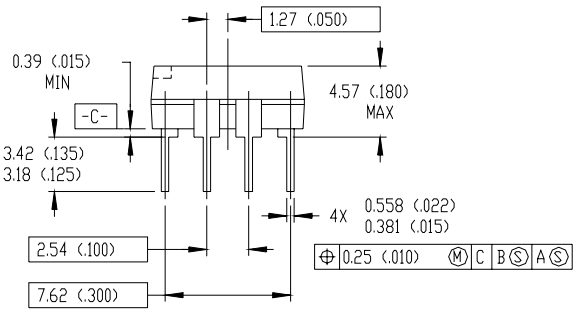


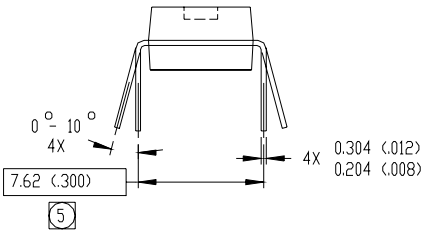
Figure 9. Typical Output Capacitance

Case Outlines

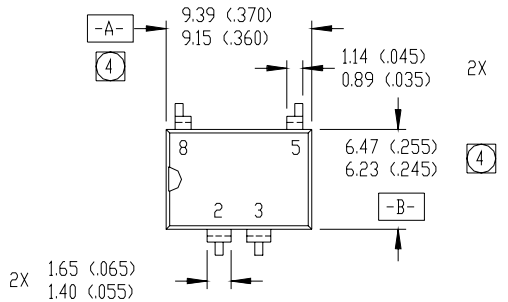


NOTES:
1. DIMENSIONING & TOLERANCING PER ANSI Y14.5M-1982.
2. CONTROLLING DIMENSION: INCH.
3. DIMENSIONS ARE SHOWN IN MILLIMETERS (INCHES).
4. OUTLINE CONFORMS TO JEDEC OUTLINE MS-001AB.
5. MEASURED WITH THE LEADS CONSTRAINED TO BE PERPENDICULAR TO DATUM PLANE C.

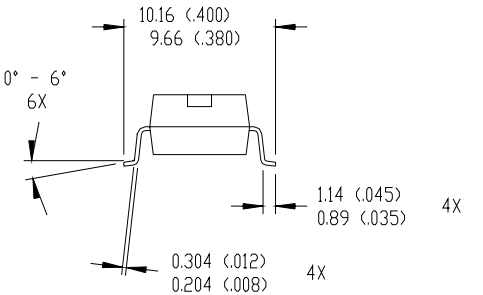




01-2013 00 (MS-001AB)



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).



01-2019 00

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	PVDZ172NPbF	N/A
	PVDZ172NSPbF	MSL4 (per JEDEC J-STD-020E & JEDEC J-STD-033C ††)
	PVDZ172NS-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
4/29/2015	• Added Qualification Information Table on page 6 • Updated data sheet with new IR corporate template

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To contact International Rectifier, please visit http://www.irf.com/whoto-call/