

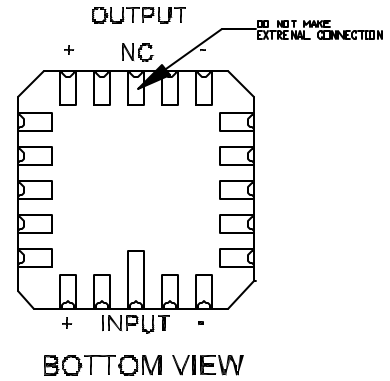
Description:

The CT201DSM is an isolated photovoltaic MOSFET driver used when a high degree of electrical isolation is required.

The driver can isolate the MOSFET from more sensitive control circuitry and enable the source and drain connections to reach any potential within the range of the isolation voltage. High photo efficiency produces fast turn on. The CT201DSM is packaged in an 20 pin hermetically sealed LCC and is designed for high reliability applications. For Hi-Rel 883 Screening add 883 suffix to part number.

MOSFET Driver Active Discharge

Pin Connections



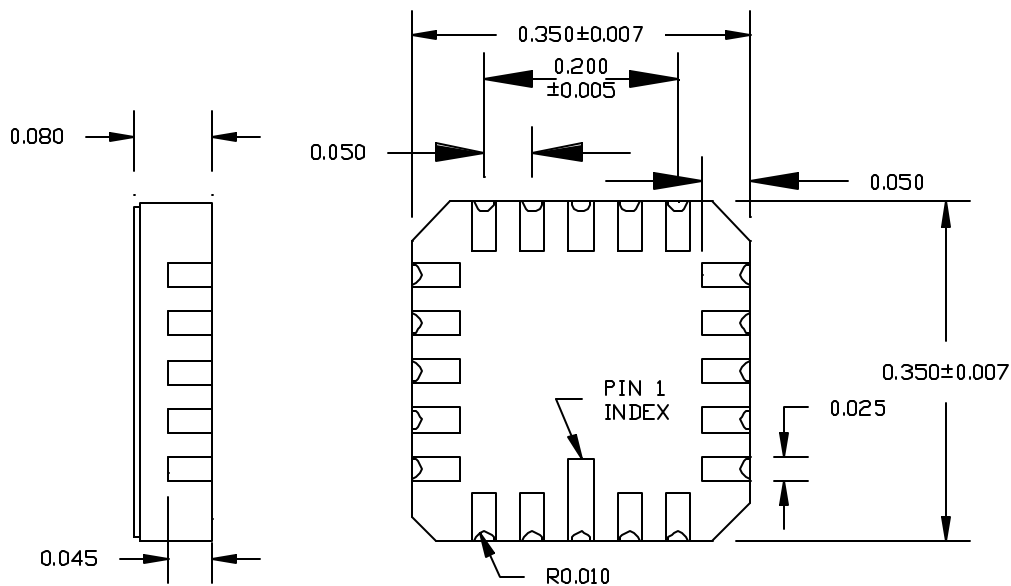
Features

- Active Gate Discharge Circuitry
- Optical Isolation
- High Isolation Voltage
- Wide Operating Temperature Range

Applications

- Gate Drive Power MOSFETS
- Solid State Relays
- Process Controls
- Switching Power Supplies
- DC Motor Control

Mechanical Dimensions

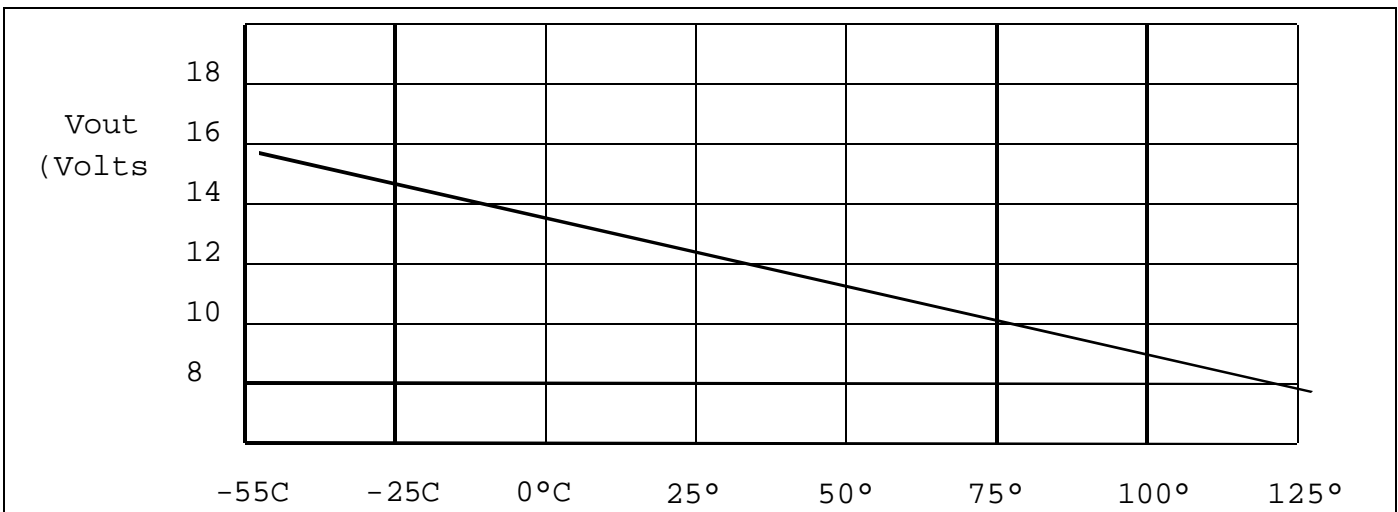


Absolute Maximum Ratings (Per Channel, Tc= -55°C to +125°C unless otherwise specified)

Parameter	Condition	Rating	Units
Led Forward Current	Steady State	50	mA
Led Forward Current	Peak, 10% Duty Cycle	75	mA
Led Reverse Voltage	Reverse Current = -10 μ A	5	V
Output Voltage	Open Circuit	14	V
Output Current	Led Current = 50 mA	75	μ A
Operating Temperature		-55 to 125	$^{\circ}$ C
Storage Temperature		-55 to 150	$^{\circ}$ C
Isolation Voltage		500	V

Electrical Characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Short Circuit Current	I_{SC}	LED Current = 10 mA, $V_o = 0$ V	9	12		μ A
		LED Current = 20 mA, $V_o = 0$ V	20	30		
		LED Current = 30 mA, $V_o = 0$ V	30	45		
Open Circuit Voltage	V_{OC}	LED Current = 10 mA	10.0	10.8		V
		LED Current = 20 mA	11.0	11.8		
		LED Current = 30 mA	12.0	12.8		
LED Forward Voltage	$V_{F(LED)}$	LED Current = 20 mA		2.2	2.9	V
LED Reverse Current	$I_{R(LED)}$	$V_R = -5.0$ V	-5.0	-0.1		μ A
Off State Voltage	$V_{(OFF)}$	LED Current = 0.0 mA, $I_o = -1.0$ μ A			1.6	V
Isolation Voltage	$V_{(ISO)}$		500			V_{DC}
Isolation Resistance	$R_{(ISO)}$	V_{IN} to $V_{OUT} = 100$ V	100			MO



Note: Semitronics reserves the right to change the circuitry without notice. Semitronics is limited to replacement due to defective workmanship only.