



SEMITRONICS

MOSFET DRIVER

CT-202DM/883

FEATURES

- Screening to 883 available
- Optical isolation
- High isolation voltage
- High Efficiency
- Logic Circuit Compatible

APPLICATIONS

- High side switching
- Solid state relays
- Process Controls
- Robotics
- Automatic Test Equipment
- Automotive Applications
- Programmable Controllers, etc.

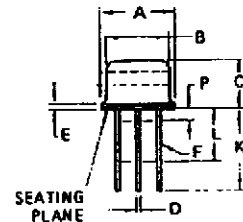
DESCRIPTION

The CT-202DM 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. An external resistor connected between the gate and source of the Mosfet will discharge the gate and keep it turned off when there is no led input.

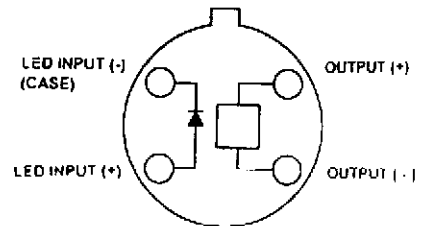
The typical input circuit is a limiting resistor connected in series with the input Led. When activated, infrared energy is optically coupled to a photovoltaic diode array producing a voltage which charges the gate of the Mosfet being driven. When current to the led is turned off the gate of the Mosfet is discharged and held in a low impedance state.

The CT-202DM is packaged in a 4 pin TO-5 hermetic package other package types and high rel versions are available, please consult our sales department for additional information.

4 PIN TO-5 CASE



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	8.89	9.40	0.350	0.370
B	8.00	8.51	0.315	0.335
C	6.10	6.60	0.240	0.260
D	0.406	0.533	0.016	0.021
E	0.229	3.18	0.009	0.125
F	0.406	0.483	0.016	0.019
G	4.83	5.33	0.190	0.210
H	0.711	0.864	0.028	0.034
J	0.737	1.02	0.029	0.040
K	12.70	-	0.500	-
L	6.35	-	0.250	-

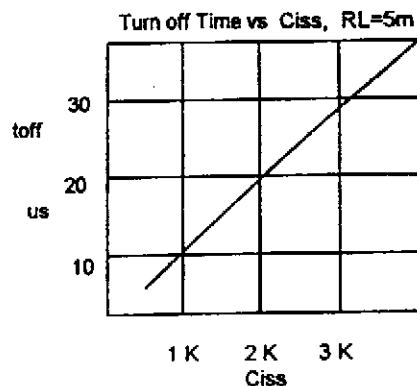
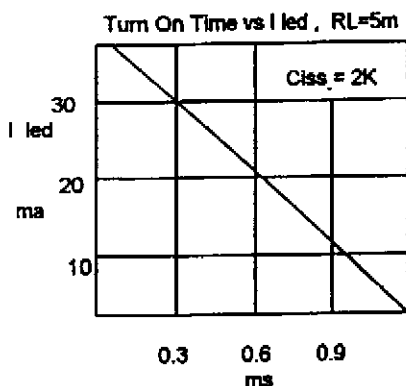
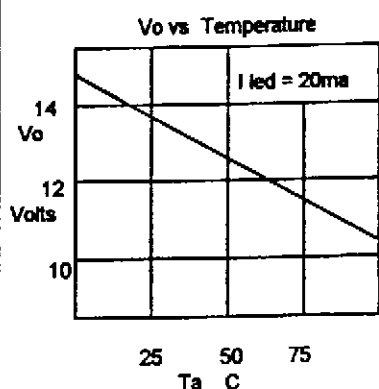


Absolute Maximum Ratings

Led Forward Current	Steady State	50 ma
Led Forward Current	Peak 10 % Duty Cycle	75 ma
Led Reverse Voltage	Reverse Current, -10 ua	5 V
Output Voltage	Open Circuit	16 V
Output Current	I Led = 50ma	75 ua
Operating Temperature		-55C to +125C
Storage Temperature		-55C to +125C
Isolation Voltage		1000 V DC

Electrical Characteristics			25 C unless otherwise noted			
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit current	Isc	I Led = 10 ma , Vo = 0 V	10	13		ua
		I Led = 20 ma , Vo = 0 V	20	23		ua
		I Led = 30 ma , Vo = 0 V	30	35		ua
Open Circuit Voltage	Voc	I Led = 10 ma	13.0	3.5		V
		I Led = 20 ma	13.5	13.7		V
		I Led = 30 ma	14.0	14.5		V
Led Forward Voltage	Vf led	I Led = 20ma		1.3	1.5	V
Led Reverse Current	Ir Led	Vr = -5V	- 5.0	-0.1		ua
Isolation Voltage	Viso	All input pins to all output pins	1000			V DC

Typical characteristics



Typical Applications

