

MOSFET DRIVER

FDA215



FEATURES

- Optically-Isolated Input to Output
- May be Configured for AC and DC Switching
- 5mA Control Current
- No EMI/RFI Generation
- Machine Insertable, Wave Solderable
- Surface Mount and Tape Reel Versions Available
- Dual Independent, Floating Outputs for Parallel, Series, or Isolated Configuration
- Replacement of Discrete Components
- Solid State Reliability
- VDE compatible

APPROVALS

- UL recognized file #: E76270
- CSA certified file #: LR 43639-12
- BSI Certified:
 - BS EN 60950:1992 (BS7002:1992) Certificate #:7344
 - BS EN 41003:1993 Certificate #:7344

OPTIONS / SUFFIXES

- S: Surface Mount Package
- TR: Tape & Reel

DESCRIPTION

The FDA215 is an optically coupled photovoltaic driver with open circuit voltage equal to 5V(Typ) and short circuit current equal to 3.5μA(Typ).

APPLICATIONS

- MOSFET Driver
- Programmable Control
- Process Control
- Instrumentation
- Telecommunications

RATINGS (@ 25° C)

Parameter	Min	Typ	Max	Units
Input Power Dissipation	-	-	150 ¹	mW
Input Control Current	-	-	100	mA
Peak (10ms)	-	-	1	A
Reverse Input Voltage	-	-	5	V
Power Dissipation	-	-	-	-
Total Package Dissipation	-	-	500 ²	mW
Capacitance	-	-	-	-
Input to Output	-	3	-	pF
Isolation Voltage	-	-	-	-
Input to Output	3750	-	-	V _{RMS}
Operational Temperature	-40	-	+85	°C
Storage Temperature	-40	-	+125	°C
Soldering Temperature	-	-	-	-
DIP Package	-	-	+260	°C
Surface Mount Package (10 Seconds Max.)	-	-	+220	°C

¹ Derate Linearly 1.33 mw/°C

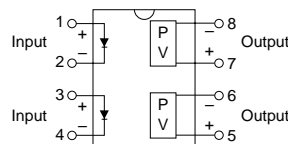
² Derate Linearly 6.67 mw/°C

Note: For Mechanical Dimensions See Pages 408-415

SPECIFICATIONS

PARAMETERS	CONDITIONS	SYMBOL	MIN	TYP	MAX	UNITS
Output Characteristics @ 25°C						
Load Voltage	-	V_L	-	-	10	V
Load Current	-	I_L	-	-	1	μA
Open Circuit Voltage	$I_F=5\text{mA}$	V_{OC}	-	5.5	8	V
Short Circuit Current	$I_F=5\text{mA}$	I_{SC}	1.0	2.5	-	μA
Short Circuit Current	$I_F=25\text{mA}$	I_{SC}	2.5	3.5	-	μA
Switching Speeds						
Turn-on	$I_F=5\text{ mA}, C_{LOAD}=200\text{pF}$	T_{ON}	-	-	5.0	mS
Turn-off	$I_F=5\text{ mA}, C_{LOAD}=200\text{pF}$	T_{OFF}	-	-	5.0	mS
Offstate Clamping Resistance	-	R_{CL}	-	0.25	3.3	$\text{K}\Omega$
Input Characteristics @ 25°C						
Control Current	-	I_F	5	-	100	mA
Input Voltage Drop	$I_F=5\text{mA}$	V_F	0.9	1.2	1.4	V
Reverse Input Voltage	-	V_R	-	-	5	V
Reverse Input Current	-	I_R	-	-	10	μA
Common Characteristics @ 25°C						
Input to Output Capacitance	-	$C_{i/O}$	-	3	-	pF
Input to Output Isolation	-	$V_{i/O}$	3750	-	-	V_{RMS}

FDA215 Pinout



Note: For Mechanical Dimensions See Pages 408-415

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