

1ED3123MU12HXUMA1

Data Sheet

Manufacturers	Infineon Technologies Corporation				
Package/Case	PG-DSO-8	L'AND AND			
Product Type	Integrated Circuits (ICs)				
RoHS		Le			
Lifecycle					
		Images are for reference only			
Please submit REO for 1ED3123MI 112HXI IMA1 or Email to us; sales@ovaga.com We will contact you in 12 hours REO					

General Description

EiceDRIVER[™] Compact single-channel isolated gate driver with 14 A typical sinking and sourcing peak output current in DSO-8 wide-body package with large creepage distance (>8 mm) for IGBTs, MOSFETs and SiC MOSFETs.

1ED3123MU12H belongs to the EiceDRIVERTM Compact 1ED31xx family (X3 compact family). 1ED3123 offers separate sink and source output, accurate and stable timing, active shutdown to ensure a safe IGBT off-state in case the output chip is not connected to the power, short-circuit clamping to limit the gate voltage during short circuit. The driver can operate over a wide supply voltage range, either unipolar or bipolar.

EiceDRIVERTM Compact single channel isolated gate driver 1ED31xx family (X3 compact family)

For use with 650 V/1200 V/1700 V/2300 V IGBTs, Si and SiC MOSFETs

2300 V functional offset voltage capable for selected applications

Galvanically isolated coreless transformer gate driver

14 A typical sinking and sourcing peak output current

- 40 V absolute maximum output supply voltage
- 90 ns propagation delay with 30 ns input filter

High common-mode transient immunity CMTI >200 kV/µs

Separate source and sink outputs

Short-circuit clamping and active shutdown

DSO-8 300 mil wide-body package with large creepage distance (>8 mm)

8 V/10 V undervoltage lockout (UVLO) protection with hysteresis

Integrated filters reduce the need of external filters

Tight IC-to-IC turn on propagation delay matching (7 ns max.), tolerance improves application robustness without variations due to aging, current, and temperature

Suitable for operation at high ambient temperature and in fast switching applications

UL 1577>

Tight propagation delay allows minimum deadtime improving system efficiency and decreasing harmonic distortion

The precise threshold and timings, combined with UL 1577 certification enable superior application safety

High isolation capability, can be used in 1500 V DC solar inverter application

Part No	Typ. current	Feature	UVLO	Isolation Certification
1ED3120MU12H	5.5 A	Separate output	8/10 V	UL 1577
1ED3121MU12H	5.5 A	Separate output	10.5/12.5 V	UL 1577
1ED3122MU12H	10 A	Active Miller clamp	8/10 V	UL 1577
1ED3123MU12H	14 A	Separate output	8/10 V	UL 1577
1ED3124MU12H	14 A	Separate output	10.5/12.5 V	UL 1577
1ED3131MU12H	5.5 A	Separate output, 180 ns input filter	10.5/12.5 V	UL 1577

Features

EiceDRIVER[™] Compact single channel isolated gate driver 1ED31xx family (X3 compact family) For use with 650 V/1200 V/1700 V/2300 V IGBTs, Si and SiC MOSFETs 2300 V functional offset voltage capable for selected applications Galvanically isolated coreless transformer gate driver 14 A typical sinking and sourcing peak output current 40 V absolute maximum output supply voltage 90 ns propagation delay with 30 ns input filter High common-mode transient immunity CMTI >200 kV/µs Separate source and sink outputs Short-circuit clamping and active shutdown DSO-8 300 mil wide-body package with large creepage distance (>8 mm) 8 V/10 V undervoltage lockout (UVLO) protection with hysteresis Integrated filters reduce the need of external filters Tight IC-to-IC turn on propagation delay matching (7 ns max.), tolerance improves application robustness without variations due to aging, current, and temperature Suitable for operation at high ambient temperature and in fast switching applications UL 1577>

Tight propagation delay allows minimum deadtime improving system efficiency and decreasing harmonic distortion

The precise threshold and timings, combined with UL 1577 certification enable superior application safety

High isolation capability, can be used in 1500 V DC solar inverter application

Related Products



<u>BTT6050-1EKA</u>

Infineon Technologies Corporation



BTS5020-1EKA

Infineon Technologies Corporation SOP14



TLE8209-1E

Infineon Technologies Corporation HSOP-20



1ED020I12FTA

Infineon Technologies Corporation PG-DSO-20



1ED020I12FA2

Infineon Technologies Corporation PG-DSO-20



<u>1ED020I12-B2</u>

Infineon Technologies Corporation SOP16



BTT6010-1EKA

Infineon Technologies Corporation

1EDI2001AS

Infineon Technologies Corporation