

# MIC4224YMME

Data Sheet

Power Driver ICs Dual 4A High Speed MOSFET Drivers with Enable

Manufacturers <u>Microchip Technology</u>, Inc

Package/Case MSOP-8

Product Type Power Management ICs

RoHS Rohs

Lifecycle



Images are for reference only

Please submit RFQ for MIC4224YMME or Email to us: sales@ovaga.com We will contact you in 12 hours.

**RFO** 

## **General Description**

The MIC4223/MIC4224/MIC4225 are a family of a dual 4A, high-speed, low-side MOSFET drivers with logic-level driver enables. The devices are fabricated on Bipolar/CMOS/DMOS (BCD) process and operate from a 4.5V to 18V supply voltage. The devices parallel Bipolar and CMOS output stage architecture provides high current throughout the MOSFETs Miller Region allowing the driver to sink and source 4A of peak current from a 12V supply and quickly charge and discharge a 2000pF load capacitance in under 15ns, while allowing the outputs to swing within 0.3V of V DD and 0.16V of ground. The MIC4223/MIC4224/MIC4225 driver and enable inputs feature TTL and CMOS logic-level thresholds which are independent of supply voltage. Each driver features a dedicated active-high enable input which is internally pulled high to VDD through 100kΩ, allowing the pins to be left unconnected if it is not required to disable the driver outputs. The driver inputs have been designed to protect against ground bounce and are protected to withstand -5V of voltage swing at -40mA. Driver outputs are also protected to withstand 500mA of reverse current. The MIC4223/MIC4224/MIC4225 are available in three configurations using industry standard pin out; dual inverting (MIC4223), dual non-inverting (MIC4224) and complimentary (MIC4225). They are available in 8-pin SOIC and thermally enhanced ePadD 8-pin MSOP and support operating junction temperatures from -40°C to +125°C.

## **Features**

4.5V to 18V supply voltage operating range

High peak source/sink current

15ns/15ns rise and fall times with 2000pF load

25ns/35ns (rising/falling) input propagation delay

20ns/45ns (rising/falling) enable propagation delay

Active-high driver enable inputs with  $100k\Omega$  pull-ups

CMOS and TTL logic input and enable thresholds independent of supply voltage

Driver input protection to -5V at -40mA

Output latch-up protection to >500mA reverse current

Industry standard pin out with two package options

ePad MSOP-8 (>

8-pin SOIC (>

Available in dual-inverting (MIC4223), dual non-inverting (MIC4224) and complementary (MIC4225)

Dual output drive by paralleling channels

### **Related Products**



**MIC94325YMT-TR** 

Microchip Technology, Inc UDFN-6



MIC2009A-1YM6-TR

Microchip Technology, Inc SOT-23-6



MIC5841YWM-TR

Microchip Technology, Inc SOIC-18



**MIC4684YM** 

Microchip Technology, Inc SOIC-8



### MIC2090-1YM5-TR

Microchip Technology, Inc SOT-23-5



**MIC5891YN** 

Microchip Technology, Inc PDIP-16



MIC29152WT

Microchip Technology, Inc
TO-220-5



MIC5209YM

Microchip Technology, Inc
SOIC-8