

## Product Overview

### LA6581DM: Single-Phase Full-Wave BTL Fan Motor Driver

For complete documentation, see the data sheet.

The LA6581DM is a low-saturation BTL output linear driving motor driver for single-phase bipolar fan motors. It features quite, low power, high efficiency drive that suppresses reactive current. It is optimal for use in applications that require miniaturization and low noise, such as CPU cooling fan motors and 5 to 12V electronic game products.

### Features

- Single-phase full-wave linear drive with BTL output (gain resistance  $500\Omega$  to  $284k\Omega$ , 55dB) : Suitable for the equipment requiring silent operation, such as game equipment, CPU cooler, etc. because of its freedom from switching noise.
- Low-voltage operation possible, with wide operable voltage range (2.2 to 16V)
- Low saturation output (Upper + lower saturation voltage :  $V_{Osat}$  (total) = 0.3V typ,  $I_O = 100mA$ ) : High coil efficiency with low current drain. IC itself does not generate much heat.
- High impedance of Hall input pin
- FG output (rotation speed detection output : open collector output)
- Heat protection circuit : When the large current flows because of output short-circuit, raising the IC chip temperature above  $180^\circ C$ , the heat protection circuit suppresses the drive current, preventing IC burn and breakdown.
- Extra-small package (Micro8) Small substrate while allowing larger blades

### Part Electrical Specifications

Product	Compliance	Status	Phase	$V_M$ Min (V)	$V_M$ Max (V)	$V_{CC}$ Min (V)	$V_{CC}$ Max (V)	$I_O$ Max (A)	$I_O$ Peak Max (A)	Control Type	Package Type
LA6581DMR2G	Pb-free Halide free	Active	1	2.2	16	2.2	16	0.36	0.5	DC	Micro8™

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