

### Description

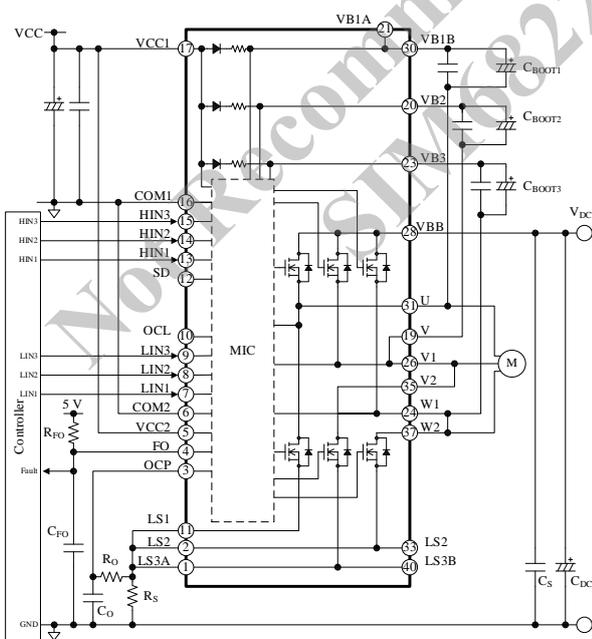
The SIM6800M series are high voltage 3-phase motor driver ICs in which transistors, a pre-driver IC (MIC), and bootstrap circuits (diodes and resistors) are highly integrated.

These products can run on a 3-shunt current detection system and optimally control the inverter systems of small- to medium-capacity motors that require universal input standards.

### Features

- Built-in Bootstrap Diodes with Current Limiting Resistors (60 Ω)
- CMOS-compatible Input (3.3 V or 5 V)
- Bare Lead Frame: Pb-free (RoHS Compliant)
- Isolation Voltage: 1500 V (for 1 min)  
UL-recognized Component (File No.: E118037)  
(SIM6880M UL Recognition Pending)
- Fault Signal Output at Protection Activation (FO Pin)
- High-side Shutdown Signal Input (SD Pin)
- Protections Include:
  - Overcurrent Limit (OCL): Auto-restart
  - Overcurrent Protection (OCP): Auto-restart
  - Undervoltage Lockout for Power Supply High-side (UVLO\_VB): Auto-restart
  - Low-side (UVLO\_VCC): Auto-restart
  - Thermal Shutdown (TSD): Auto-restart

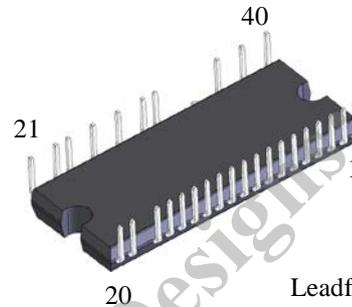
### Typical Application (SIM681xM)



### Package

DIP40

Mold Dimensions: 36.0 mm × 14.8 mm × 4.0 mm



Leadform 2971

Not to scale

### Selection Guide

$V_{DSS}/V_{CES}$	$I_o$	Feature	Part Number
500 V	2.0 A	Power MOSFET	SIM6811M
	2.5 A		SIM6812M
	3.0 A		SIM6813M
600 V	3.0 A	IGBT with FRD, low switching dissipation	SIM6880M
	5.0 A	IGBT with FRD, low switching dissipation	SIM6822M
	5.0 A	IGBT with FRD, low noise	SIM6827M

### Applications

For motor drives such as:

- Refrigerator Compressor Motor
- Fan Motor and Pump Motor for Washer and Dryer
- Fan Motor for Air Conditioner, Air Purifier, and Electric Fan