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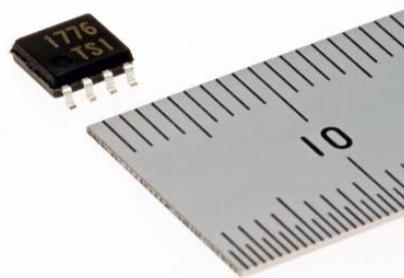
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**Mitsubishi Electric to Launch Low-cost Version of  
 Half-bridge Driver High-voltage (600V) IC**  
*Combines competitive low pricing and high noise resistance*

**TOKYO, September 10, 2019** – [Mitsubishi Electric Corporation](http://www.MitsubishiElectric.com) (TOKYO: 6503) announced today its coming launch of a low-cost half-bridge driver high-voltage (600V) integrated circuit (HVIC) that achieves low pricing and high noise resistance by emphasizing basic functions. The new HVIC, designed for circuits that drive power semiconductors in low capacity inverter systems, is expected to lower the power consumption of white goods, electric bikes and industrial equipment. Sales will begin on October 18, 2019.



New low-cost 600V HVIC (M81776FP)

HVICs that drive power semiconductors in inverter systems are in increasing demand for use in motor control systems that help to save energy and improve the performance of consumer products and industrial equipment. Mitsubishi Electric HVICs combine highly reliability, cost effectiveness and compact designs.

**Sales Schedule**

Product	Model	Specification	Release
600V HVIC	M81776FP	600V / -0.35A, +0.2A	Oct 18, 2019

**Product Features**

- 1) ***Low-price, highly noise-resistant HVIC solution contributes to inverter systems reliability***
  - Optimized circuit design and rationalized materials help to reduce price
  - Enhanced system reliability realizes high noise resistance, using embedded layer to suppress latch-up malfunctions at switching (low-resistance diffusion layer directly under element reduces impedance directly below element, suppressing malfunctions due to mutual influence of all elements)

- Optimized floating circuits improve signal transmission accuracy in high-side circuits (high-voltage circuit for driving high-side devices isolated from ground)

2) **Compatible with existing M81736FP product for replacements**

- Compatible external profile (8-pin small outline package), pin layout and electrical properties enable drastically simplified replacement of existing product (M81736FP)

**Specifications**

Model	M81776FP
Breakdown voltage	600V(high-side) / 24V(low-side)
Output current	-0.35A, +0.2A
Low-side circuit current	0.5mA
High-side circuit current	0.2mA
Package (dimensions)	8-pin SOP (225mil)
Junction-case thermal resistance	50°C/W
Functions	Half-bridge driver
	3.3V / 5.0V logic input
	Under-voltage lockouts on both high side and low side
	Input interlock prevents simultaneous turn-on of high side and low side

**600V half-bridge driver HVIC Lineup (new model underlined)**

Product	Model	Input signals	Output current	Package	Functions	Supply situation
600V HVIC	<u>M81776FP</u>	2	-0.35A/+0.2A	8-pin SOP	UV <sup>1</sup> , IL <sup>2</sup>	Sample available from Oct 18, 2019
	M81767FP	2	3.5A		UV, IL	MP
	M81747FP	2	-0.35A/+0.2A		UV, IL, NF <sup>3</sup>	
	M81767JFP	2	3.5A		UV, IL, NF	
	M81747JFP	2	-0.35A/+0.2A		UV, IL, NF	
	M81734FP	1	0.5A		UV	
	M81740FP	1	3.25A		UV, SD <sup>4</sup>	

<sup>1</sup> Under Voltage    <sup>2</sup> Inter Lock    <sup>3</sup> input noise filter    <sup>4</sup> shut down

**Environmental Awareness**

This product is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive 2011/65/EU and (EU) 2015/863.

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**About Mitsubishi Electric Corporation**

With nearly 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded a revenue of 4,519.9 billion yen (US\$ 40.7 billion\*) in the fiscal year ended March 31, 2019. For more information visit:

[www.MitsubishiElectric.com](http://www.MitsubishiElectric.com)

\*At an exchange rate of 111 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2019