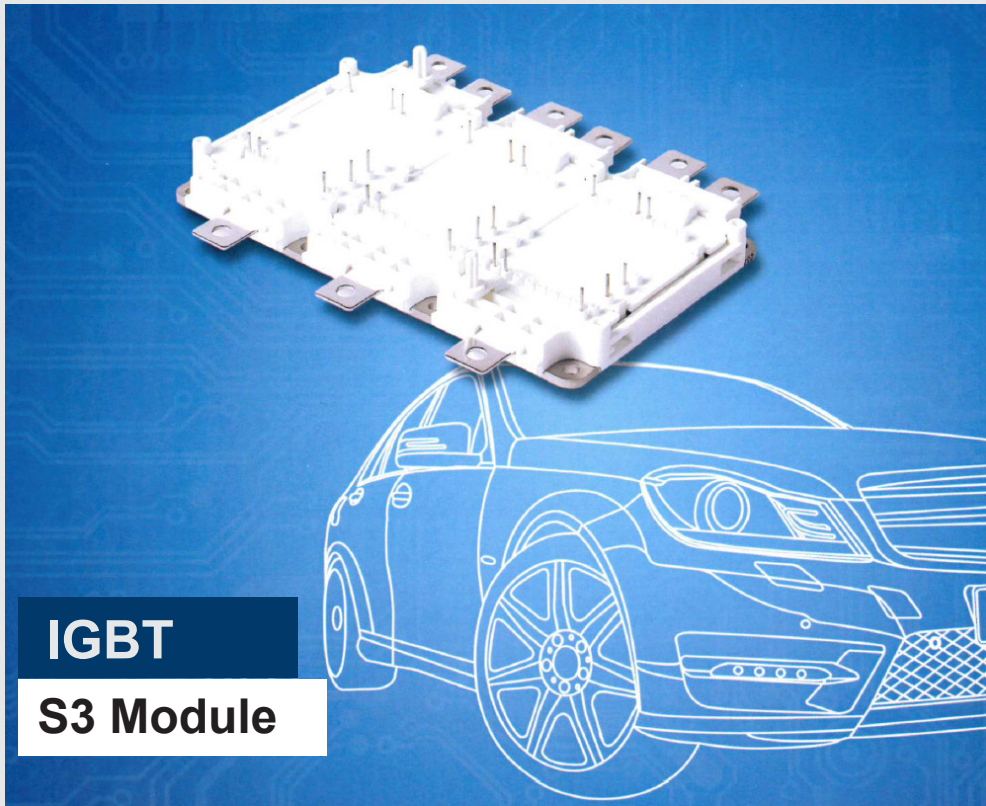




# Electric Vehicle IGBT Modules





**IGBT**  
**S3 Module**

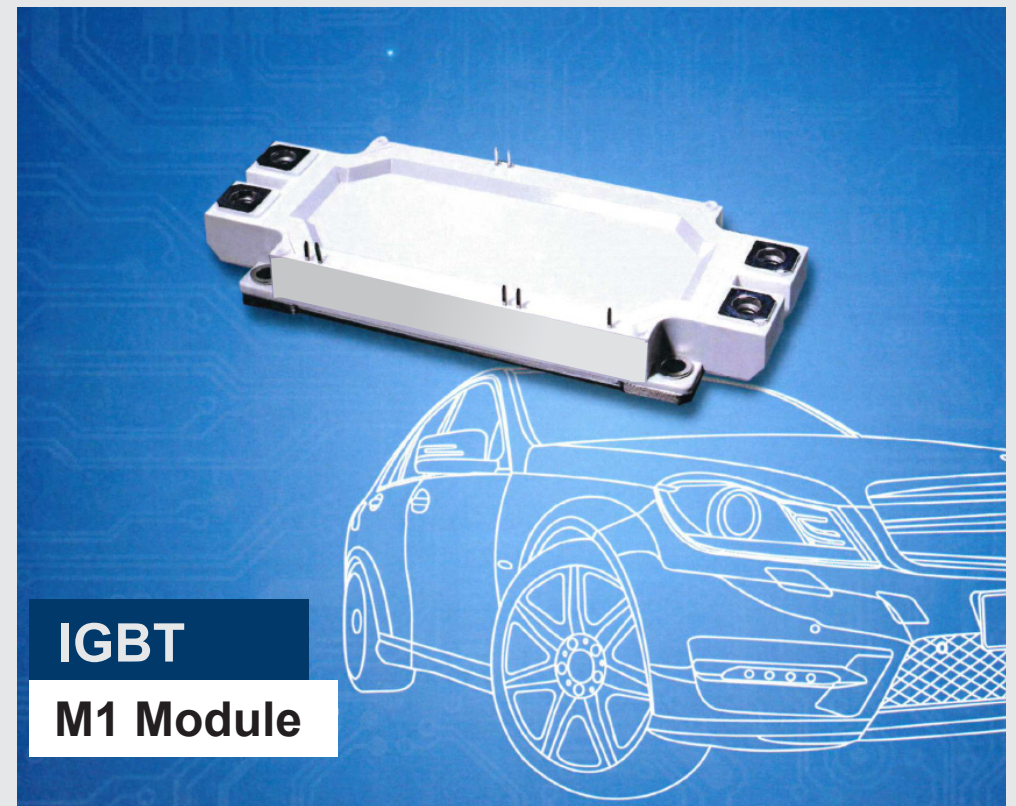
**Key Features**

- Cu pin-fin Baseplate
- Low Switching Losses
- Blocking Voltage 750V
- Low Inductive Design

**Typical Applications**

- Automotive Applications
- Hybrid/ Electric Vehicles
- Motor Drives

Part Number	Config	IC (A)	T <sub>f</sub> (°C)	V <sub>CE(sat)</sub> @ T <sub>C</sub> =25°C (V)	E <sub>sw</sub> @ T <sub>C</sub> =150°C (mJ)	T <sub>VJM</sub> (°C)	R <sub>th(j-c)</sub> (°C/kW)	R <sub>th(j-c)</sub> (°C/kW)	Baseplate Dims (mm)	Isol Volt (kV)	Tech
TG600FF08S3-S3A00	Six Pack	600	65	1.55	22.9	150	/	92	155 x 127 x 21	2.5	TMOS+
TG600FF08S3-S3A01	Six Pack	600	65	1.55	22.9	150	115	/	155 x 127 x 27	2.5	TMOS+
TG820FF08S3-S4A01	Six Pack	820	80	1.3	44	150	114	/	155 x 127 x 27	2.5	RTMOS+



**IGBT**  
**M1 Module**

**Key Features**

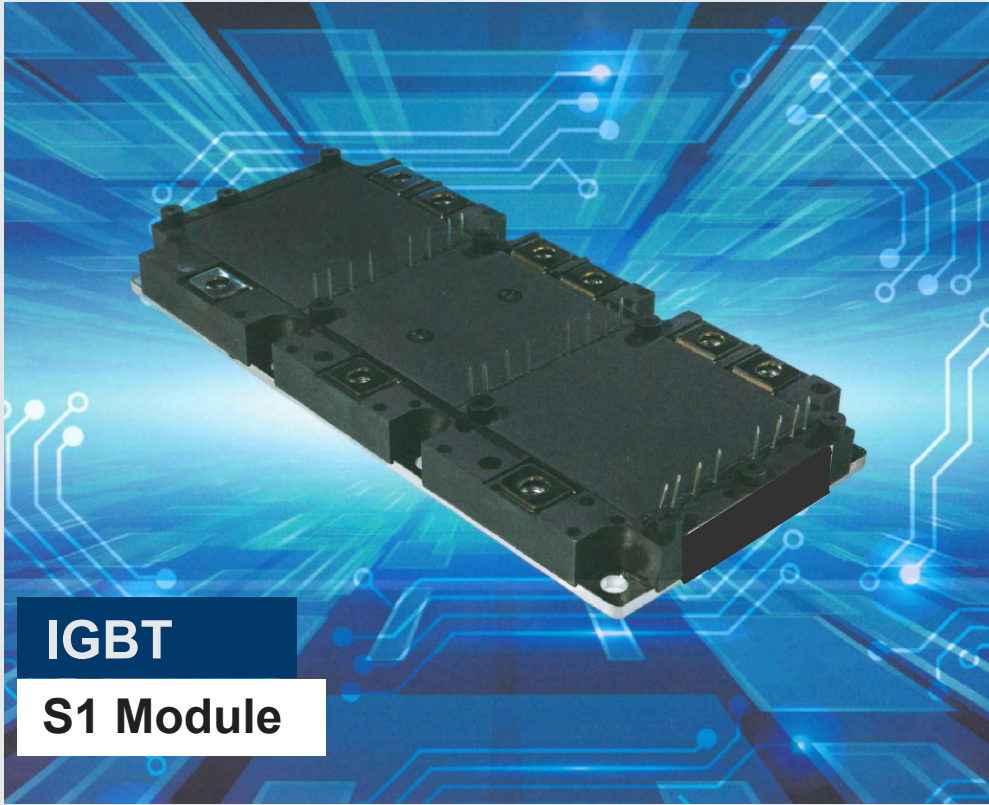
- Cu baseplate
- Enhanced Al<sub>2</sub>O<sub>3</sub> substrates
- High Thermal Cycling Capability
- 10µs Short Circuit Withstand

**Typical Applications**

- Motor Drives
- Power Charging Equipment
- Solar Power
- Electric Vehicle

Part Number	Config	IC (A)	TC (°C)	V <sub>CE(sat)</sub> @ T <sub>C</sub> =25°C (V)	E <sub>sw</sub> @ T <sub>C</sub> =150°C (mJ)	T <sub>VJM</sub> (°C)	R <sub>th(j-c)</sub> (°C/kW)	Baseplate Dims (mm)	Isolation Voltage (kV)	Tech
TG450HF12M1-S3A00	Half Bridge	450	100	1.65	78	150	52	152 x 62 x 21	2.5	TMOS+
TG600HF12M1-G3A00	Half Bridge	600	100	1.85	116	150	49	152 x 62 x 21	2.5	TMOS+
TG800HF12M1-S3A00	Half Bridge	800	100	1.5	200	150	35	152 x 62 x 21	2.5	TMOS+





**IGBT**  
**S1 Module**

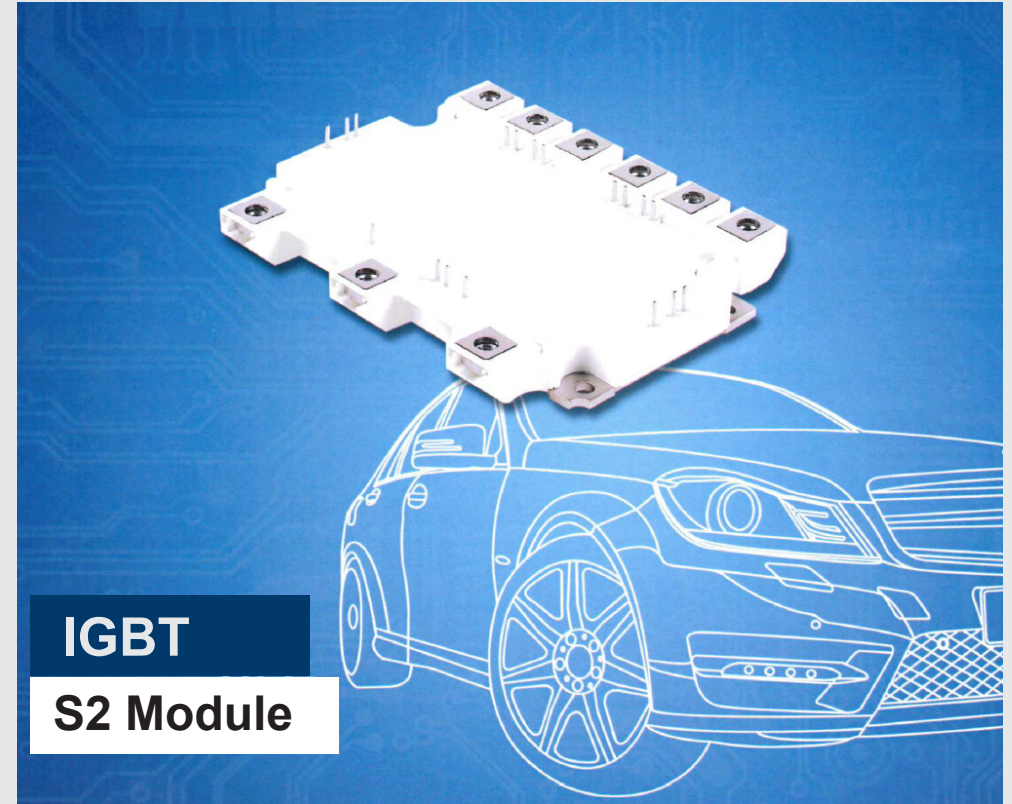
**Key Features**

- Cu baseplate
- Enhanced Al<sub>2</sub>O<sub>3</sub> substrates
- Blocking Voltage 750V
- High Current Density

**Typical Applications**

- Automotive
- Hybrid/ Electrical vehicles
- Motor Drives

Part Number	Config	IC (A)	TC (°C)	V <sub>CE</sub> (sat) @ T <sub>C</sub> =25°C (V)	E <sub>sw</sub> @ T <sub>C</sub> =1 50°C (mJ)	R <sub>th</sub> (j-c) (°C/kW)	Baseplate Dims (mm)	Isolation Voltage (kV)	Tech
TG800FF08S1-S3A	Six Pack	800	65	1.45	50	109	216 x 100	2.5	TSPT



**IGBT**  
**S2 Module**

**Key Features**

- Cu baseplate
- Enhanced Al<sub>2</sub>O<sub>3</sub> substrates
- Blocking Voltage 750V
- High Current Density

**Typical Applications**

- Automotive
- Hybrid/ Electric Vehicles
- Motor Drives

Part Number	Config	IC (A)	TC (°C)	V <sub>CE</sub> (sat) @ T <sub>C</sub> =25°C (V)	E <sub>sw</sub> @ T <sub>C</sub> =1 50°C (mJ)	T <sub>VJM</sub> (°C)	R <sub>th</sub> (j-c) (°C/kW)	R <sub>th</sub> (j-e) (°C/kW)	Baseplate Dims (mm)	Isol Vol	Tech
TG400FF08S2-S3A01	Six Pack	400	65	1.75	24.1	150	200	/	139 x 71.8 x 27	2.5	TMOS+
TG400FF08S2-S3A00	Six Pack	400	65	1.75	24.1	150	/	120	139 x 71.8 x 24	2.5	TMOS+

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