

HEV用 IGBT モジュール

IGBT Module for Hybrid Electric Vehicle

高信頼性・鉛フリーパッケージ製品
High Reliability Pb Free Product

■特長 Features

- 600V/300Aコンパクトパッケージ
- 鉛フリー
- 第6世代FSトレンチIGBT搭載
- 温度、電流検出端子搭載
- 600V/300A Compact Package for 2-pack & 6-pack
- Pb Free package
- 6th Generation IGBT chip with trench-gate FS
- Temperature & Current sensing Functions

■用途 Applications

- 電気駆動モータ用インバータ (10~20kWクラス)
- Inverter for Electric Propulsion System (10-20kW Motor)

■仕様 Specifications

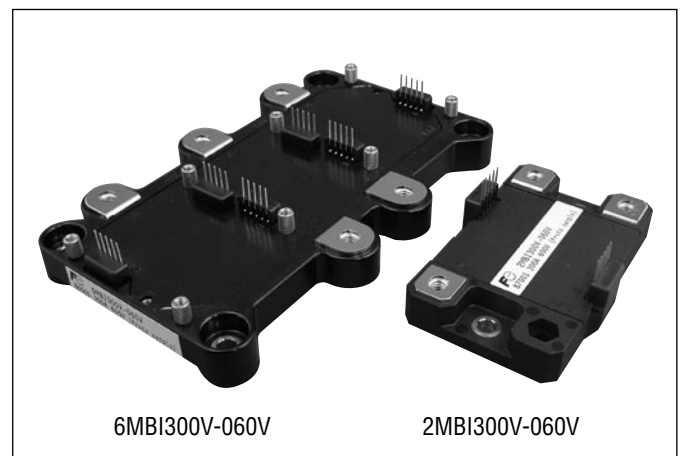
- 絶対最大定格 (Tc=25°C unless otherwise specified)

Item	Symbol	Rating	Unit
Collector-emitter voltage	V _{CEs}	600	V
Gate emitter voltage	V _{GES}	±20	V
Collector current	DC	I _c	300 A
	DC	-I _c	300 A
Max. power dissipation (1 device)	P _c	tbd	W
Operating temperature	T _j	150	°C
Storage temperature	T _{stg}	-40 ~ +125	°C
Isolation voltage	Viso	AC2500 (1min)	V
Screw torque	Mounting (M5)	3.5	Nm
	Terminals (M5)	3.5	Nm

■ 6MBI300V-060V 用評価基板

Evaluation Circuit Board for 6MBI300V-060V

- フォトカプラ絶縁制御入力、アラーム出力
- 過熱温度保護
- 低電圧保護回路内蔵
- ドライブ IC: 富士電機製駆動 IC
- 短絡保護
- 温度出力
- Optical isolated signal input, alarm output
- Detection of High Temperature
- Detection of Low Voltage
- Drive-IC : Fuji Electric Products
- Detection of Short circuit
- Temperature Output



- 電気的特性 (Tj=25°C unless otherwise specified)

Item	Symbol	Value			Conditions	Unit	
		Min.	Typ.	Max.			
Zero gate voltage collector current	I _{CEs}	-	-	2.0	V _{GE} =0V, V _{CE} =600V	mA	
Gate-emitter leakage current	I _{GES}	-	-	0.4	V _{CE} =0V, V _{GE} =±20V	μA	
Gate-emitter threshold voltage	V _{GE(th)}	tbd	6.2	tbd	V _{CE} =0V, I _c =300mA	V	
Collector-emitter saturation voltage	V _{CE(sat) terminal}	-	2.05	tbd	T _j =25°C	V _{GE} =15V I _c =300A	V
		-	2.6	-	T _j =125°C		
Input capacitance	C _{ies}	-	tbd	-	V _{GE} =0V	pF	
Forward voltage of diode	V _{f terminal}	-	1.9	tbd	T _j =25°C	V _{GE} =0V I _F =300A	V
		-	1.88	-	T _j =125°C		

