# MMG300HP065PF6T5

650V 300A Boost Module

February 2024 | Preliminary | RoHS Compliant

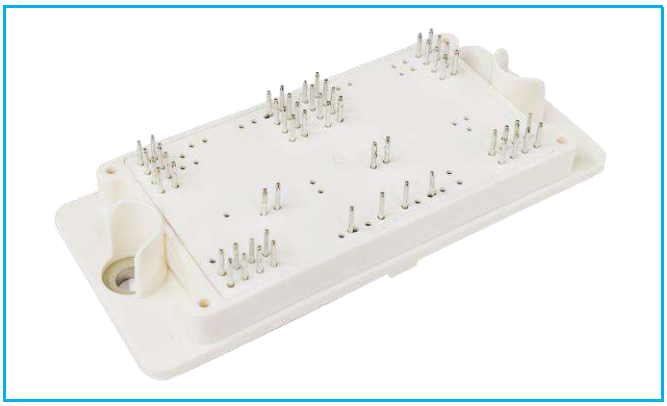
## PRODUCT FEATURES

☐ High efficient and compact symmetric booster

☐ High switching frequency and low inductive design

☐ Low losses with TRENCHSTOP™ 5 IGBT

☐ Integrated temperature sensor



## APPLICATIONS

☐ UPS Systems

ABSOLUTE MAXIMUM RATINGS ($T_C$ *=25°C unless otherwise specified)*

IGBT(T1、T2)

| Symbol | Parameter/Test Conditions | | Values | Unit |
|---|---|---|---|---|
| $V_{CES}$ | Collector Emitter Voltage | $T_{vj}$=25℃ | 650 | V |
| $V_{GES}$ | Gate Emitter Voltage | | ±20 | |
| $I_C$ | DC Collector Current | $T_C$=25℃,$T_{vjmax}$=175℃ | 345 | A |
| $I_{Cpulse}$ | Pulsed Collector Curren | tp limited by Tvjmax | 900 | |
| $P_{tot}$ | Power Dissipation | $T_C$=25℃,$T_{vjmax}$=175℃ | 600 | W |
| $T_{vjmax}$ | Max. Virtual Junction Temperature | | 175 | ℃ |

FRED(D1、D2)

| Symbol | Parameter/Test Conditions | | Values | Unit |
|---|---|---|---|---|
| $V_{RRM}$ | Repetitive Reverse Voltage | $T_{vj}$=25℃ | 650 | V |
| $I_F$ | Continue Forward Current | | 60 | A |
| $I_{FRM}$ | Repetitive Peak Forward Current | tp limited by Tvjmax | 120 | |
| $P_{tot}$ | Power Dissipation | $T_C$=25℃,$T_{vjmax}$=175℃ | 130 | W |
| $T_{vjmax}$ | Max. Virtual Junction Temperature | | 175 | ℃ |

FRED(D3、D4)

| Symbol | Parameter/Test Conditions | | Values | Unit |
|---|---|---|---|---|
| $V_{RRM}$ | Repetitive Reverse Voltage | $T_{vj}$=25℃ | 650 | V |
| $I_F$ | Continue Forward Current | | 240 | A |
| $I_{FRM}$ | Repetitive Peak Forward Current | tp limited by Tvjmax | 960 | |
| $P_{tot}$ | Power Dissipation | $T_C$=25℃,$T_{vjmax}$=175℃ | 400 | W |
| $T_{vjmax}$ | Max. Virtual Junction Temperature | | 175 | ℃ |

MacMic Science & Technology Co., Ltd.

Add：#18, Hua Shan Zhong Lu, New District, Changzhou City, Jiangsu Province, P. R .of China

Tel.：+86-519-85163708 Fax：+86-519-85162291 Post Code：213022 Website：www.macmicst.com