

# THALES

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CONSULT US TO GET  
YOUR OWN  
CUSTOM MODULE!

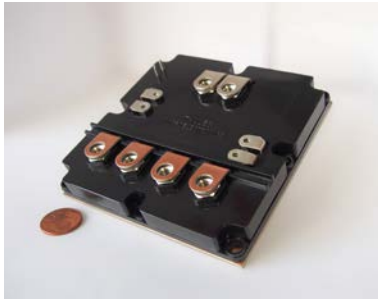
Thales Microelectronics

## Octave: Full SiC Phase Leg 1200V / 500A



**OVER 350,000 POWER CYCLES**  
Tcase 100°C / Tj 150°C





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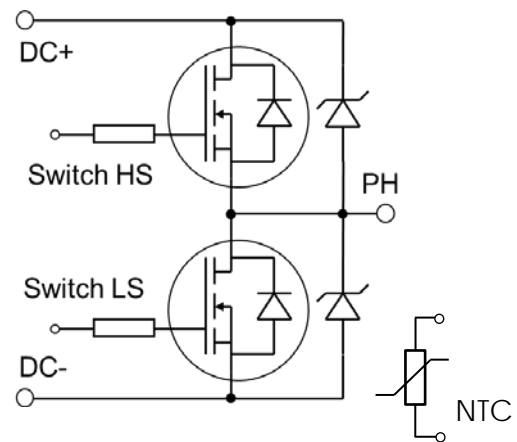
1200V / 500A

### APPLICATIONS

- Motor drives
- High efficiency static converters/inverters
- Industrial and automotive traction drives

### FEATURES

- High temperature (200°C)
- Fast switching (<50ns)
- Ultra-low loss
- SiC Mosfet and freewheeling SiC Schottky diode
- High Power density
- Dimensions: 115x115mm



### MAIN PERFORMANCES

(Tc @25°C unless otherwise specified)

Symbol	Parameter	Conditions	Value	Units
$V_{DSS}$	Drain-source voltage		1200	V
$I_D$	Continuous drain current	Tc = 25°C, Tj = 200°C	500	A
$P_D$	Maximum power dissipation		2	kW
$R_{DSON}$	Drain to source On resistance	Tj=25°C / Vgs = 20V	3,1	mΩ
$T_{sw}$	Switching time	Rg_ext= 1Ω	< 50	ns
$R_{th\ j-c}$	Junction to case thermal resistance	copper baseplate	0,083	K/W
$T_j$	Operating junction temperature		200	°C
$T_{j\ max}$	Absolute max. junction temperature		225	°C
$Dim$	Overall footprint dimensions		115 x 115	mm <sup>2</sup>

### INTERNAL TECHNOLOGICAL CONSTRUCTION (custom)

Die attach	Ag sintering or High temperature Pb free solder
Baseplate material	Cu / AlSiC / CuMo
Power distribution	Laminated busbar inside- ultrasonic welding process
Substrate	Hi-rel Si3N4 or AlN AMB technology
Die interconnection	Heavy aluminium or CuCor wedge bonding