

THALES

www.thalesgroup.com/microelectronics

CONSULT US TO GET
YOUR OWN
CUSTOM MODULE!

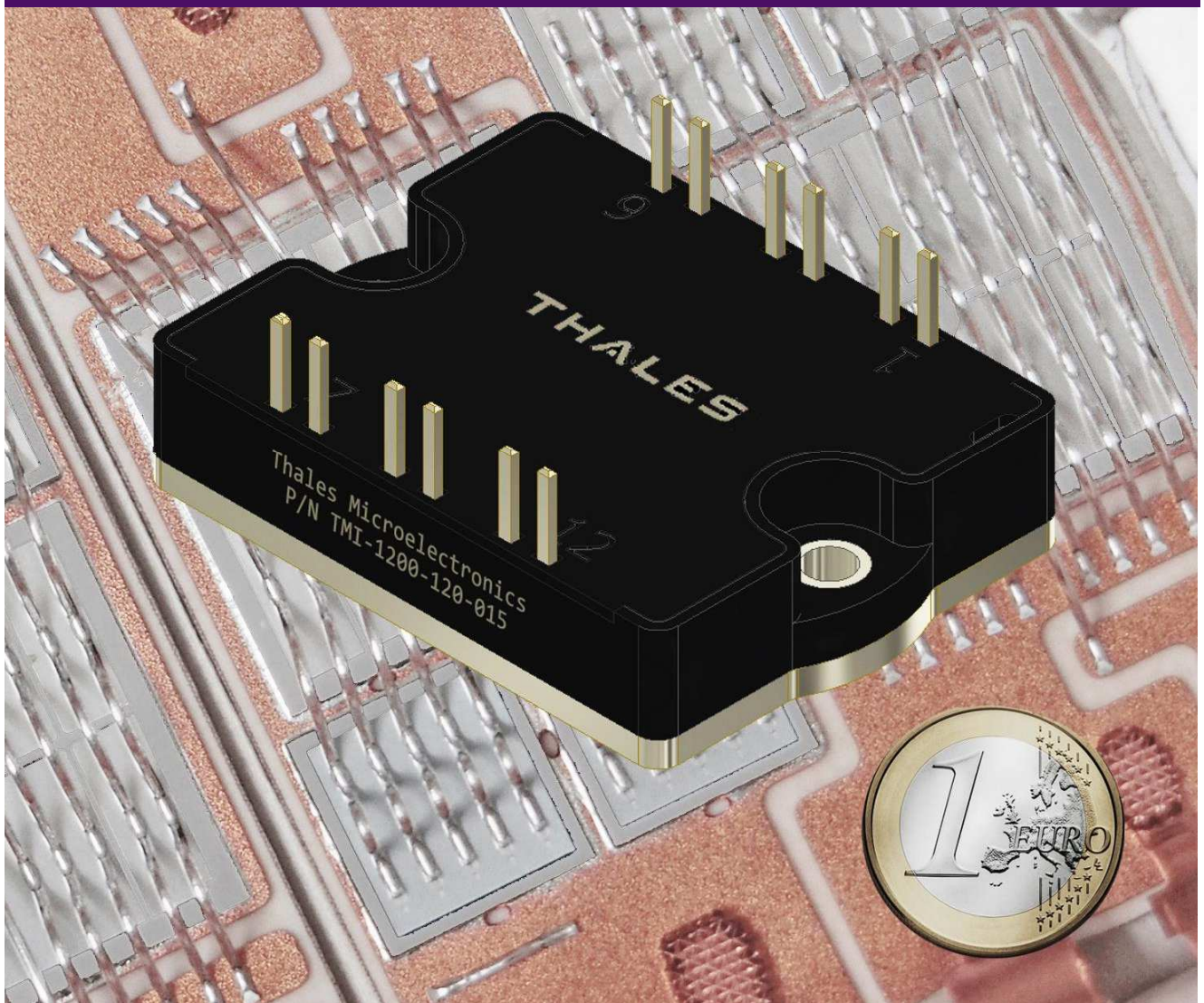
FIELD-PROVEN BENEFITS

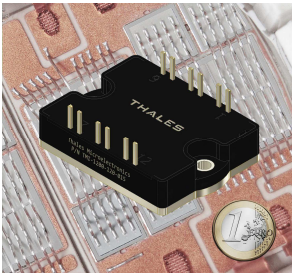
Designed to operate in critical environments:

- Intensive power cycling
- Harsh mechanical constraints' resistive

Thales Microelectronics

High-reliability full SiC Phase Leg 1200V / 120A





Full SiC Phase Leg

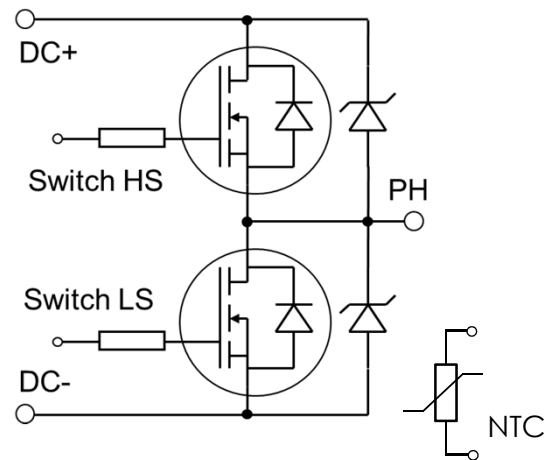
1200V / 120A

APPLICATIONS

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

FEATURES

- SiC Mosfet and freewheeling SiC Schottky diode
- Fast switching, low loss
- High Power density
- Dimensions: 52x41x12mm



MAIN PERFORMANCES

(Tc @25°C unless otherwise specified)

Symbol	Parameter	Conditions	Value	Units
V_{DSS}	Maximum Drain-source voltage		1200	V
I_D	Maximum Continuous drain current	$T_c = 25^\circ\text{C}, T_j = 150^\circ\text{C}$	120	A
P_D	Maximum power dissipation		450	W
$R_{DS(on)}$	Drain to source typ. On resistance	$T_j = 25^\circ\text{C} / V_{gs} = 20\text{V}$	13	m Ω
T_{sw}	Switching time	$R_{g_ext} = 5\Omega$	< 50	ns
$R_{th\ j-c}$	Junction to case thermal resistance	copper baseplate	0,29	K/W
T_j	Operating junction temperature		150	$^\circ\text{C}$
$T_j\ max$	Absolute max. junction temperature		175	$^\circ\text{C}$
Dim	Overall footprint dimensions		50 x 40	mm ²