

**FEATURES**

- Electrically isolated heatsinking.
- Aluminium nitride isolator.
- Compression bonded elements.
- Metal baseplate.
- Low thermal impedance.
- Improved current capability.

**APPLICATION**

- Power supplies.
- Bridge circuits.
- Battery supplies.
- AC & DC motor drives.
- Long IGBT circuit front ends.



Photo non-contractual

**TECHNICAL SPECIFICATION**
**Electrical properties**

Parameter		Test conditions	Value
Repetitive reverse voltage	$V_{RRM}$		2200 V
Non repetitive reverse voltage	$V_{RSM}$		2300 V
Reverse current	$I_{RRM}$	$T_{jmax}$	80 mA
Average on-state current	$I_{AV}$	180° Conduction $T_C=85^\circ C$	430 A
		180° Conduction $T_C=70^\circ C$	510 A
R.M.S. Forward current	$I_{RMS}$	$T_C=70^\circ C$	800 A
Surge current	$I_{TSM}$	10ms, $T_{jmax}$ , <No $V_{RRM}$ reapplied	12000 A
		10ms, $T_{jmax}$ , 100% $V_{RRM}$	10000 A
$I^2t$ value	$I^2t$	10 ms; $T_j=25^\circ C$	$980 \times 10^3 A^2s$
		10 ms; $T_j=T_{jmax}$	$720 \times 10^3 A^2s$
On-state voltage max.	$V_T$	$I_{TM}=1500A$	1,77 V
Threshold voltage	$V_O$		0,88 V
Slope resistance	$r_o$		0,66 mOhm
Maximum holding current	$I_H$		1000 mA
Rate of rise of on-state current (repetitive)	$di/dt$	JEDEC Standard 397 5.2.2.6	200 A/ $\mu s$
Rate of rise of on-state current (non repetitive)	$di/dt$	Gate drive: 20Volts, 20 Ohms with $t_r \leq 1\mu s$ . Anode voltage $0,8 \cdot V_{DRM}$	400 A/ $\mu s$
Rate of rise of voltage	$dv/dt$	$T_j=125^\circ C$ , $V_D=0,67V_{DRM}$	1000 V/ $\mu s$
Trigger gate current	$I_G$	$T_j=25^\circ C$	200 mA
Gate trigger voltage	$V_G$	$T_j=25^\circ C$	3 V
Isolation	$V_{RMS}$	$T_j=25^\circ C$	3000 V

**Thermal properties**

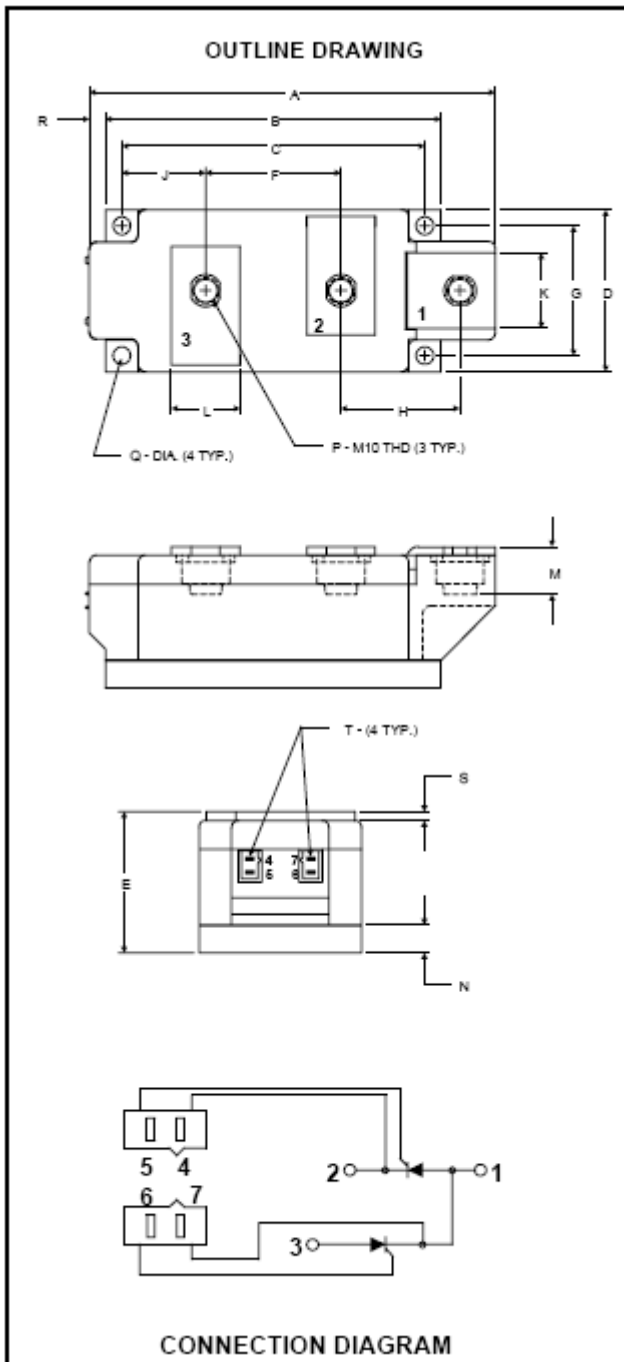
Parameter		Test conditions	Value
Thermal resistance junction-heatsink	$R_{TH_{j-ha}}$	Per junction DC	0,085 °C/W.
		Per junction 180° sin	0,087 °C/W.
		Per junction 120° rec.	0,095 °C/W.
Maximum junction operating temperature	$T_{jmax}$		125°C
Storage temperature	$T_{stg}$		-40...+150°C

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Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

**Mechanical properties**

Parameter		Value
Weight	M	1500 g
Mounting torque, M6 mounting screw	m	6 Nm
Mounting torque, M10 terminal screw		12 Nm

**DIMENSIONS**


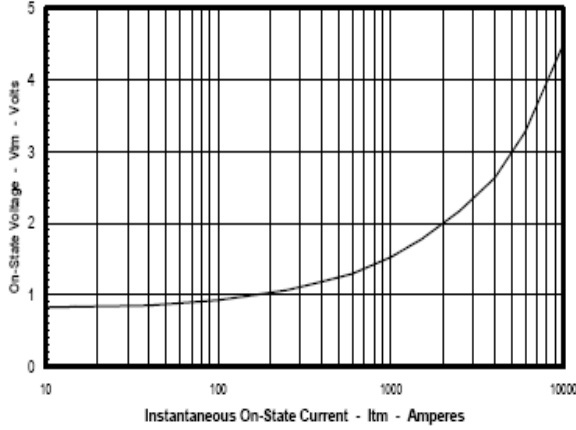
Dimension	Inches	Millimeters
A	5.91	150.0
B	4.88	124.0
C	4.41	112.0
D	2.36	60.0
E	2.05	52.0
F	1.97	50.0
G	1.89	48.0
H	1.73	44.0
J	1.22	31.0
K	1.10	28.0
L	1.00	25.4
M	0.69	17.5
N	0.39	10.0
P	M10 Metric	M10
Q	0.26 Dia.	6.5 Dia.
R	0.24	6.0
S	0.12	3.0
T	.110 x .032	2.5 x 0.8

Note: Dimensions are for reference only.

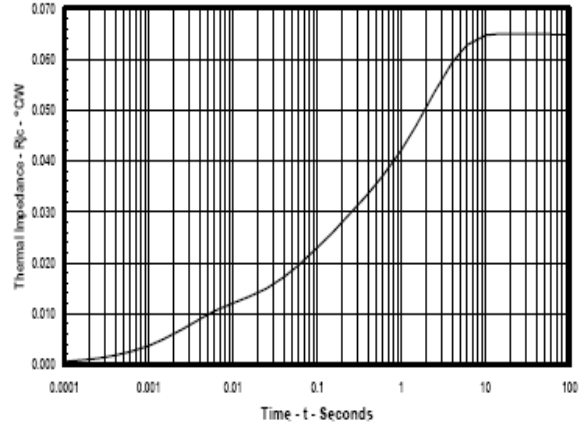
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GRAPHICAL INFO

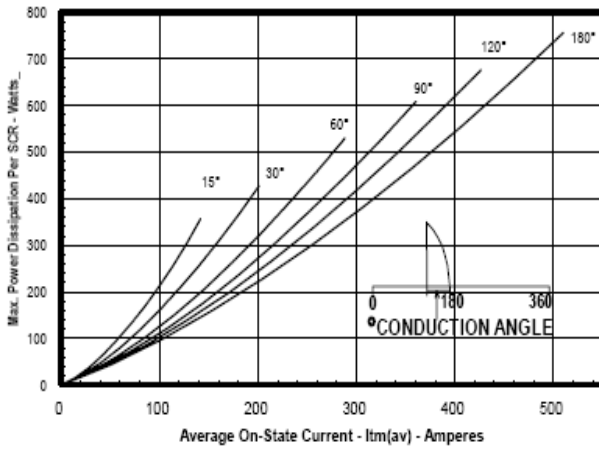
Maximum On-State Forward Voltage Drop  
(T<sub>j</sub> = 125 °C)



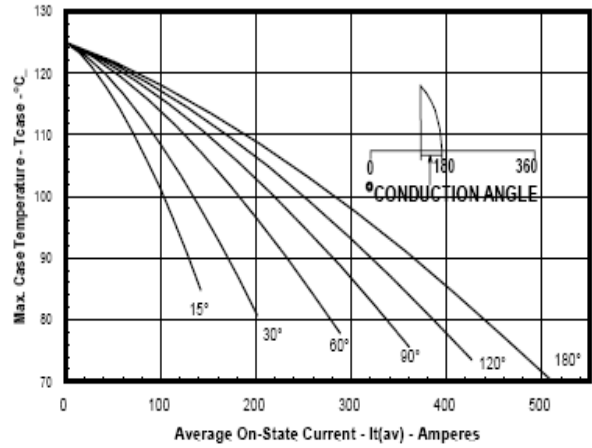
Maximum Transient Thermal Impedance  
(Junction to Case)



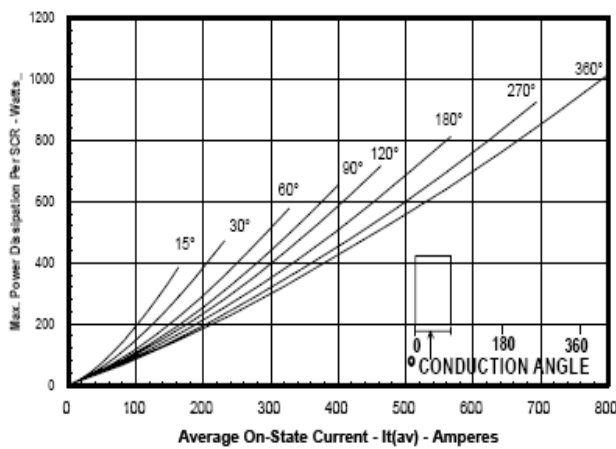
Maximum On-State Power Dissipation  
(Sinusoidal Waveform)



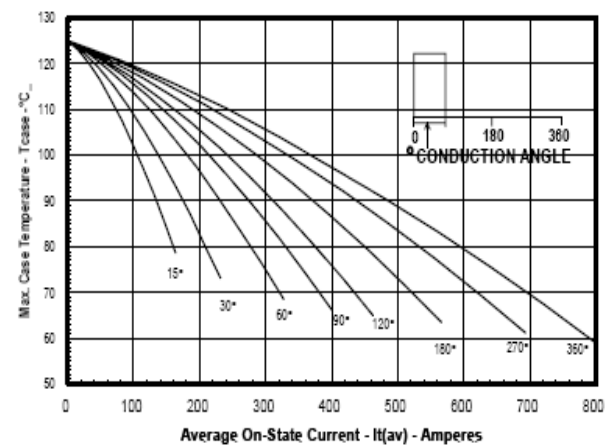
Maximum Allowable Case Temperature  
(Sinusoidal Waveform)



Maximum On-State Power Dissipation  
(Rectangular Waveform)



Maximum Allowable Case Temperature  
(Rectangular Waveform)



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## Cost Effective Products

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