



**Key Parameters**

$V_{RRM}$	= 1800V
$I_{F(AV)}$	= 810A
$I_{FSM}$	= 21000A
$V_{F(TO)}$	= 0.78V
$r_F$	= 0.23mΩ

**Features**

- Full blocking capability over wide temperature range
- Heat transfer through aluminium oxide ceramic isolated metal base plate
- Pressure contacts technology for high reliability
- UL Recognized, file no. E505556


**Applications**

- Power Supplies
- Uncontrolled Rectifiers
- Field supply for DC motors
- Battery Chargers
- UPS

**Ordering Information**

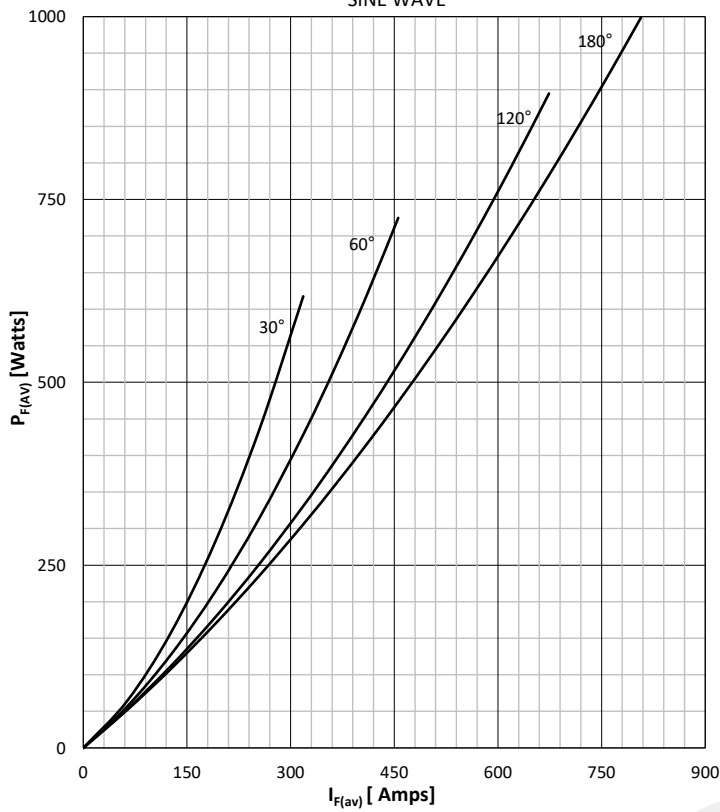
MS	DD	810	K	18
Fixed code	DD- Diode- Diode Module	Current Code	Technology K = Pressure Contact Technology	Voltage Code Code X 100 = $V_{RRM}$
Order Code MS DD810K18 : 1800V $V_{RRM}$ , Diode-Diode Module				

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Symbol	Characteristic	Conditions	T <sub>j</sub> [°C]	Value	Unit
<b>BLOCKING</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		150	200 - 1800	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		150	300 - 1900	V
I <sub>RRM</sub>	Repetitive peak reverse current	V = V <sub>RRM</sub>	150	50	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin ,50 Hz, T <sub>c</sub> =85°C 180° sin ,50 Hz, T <sub>c</sub> =100°C		810 680	A
I <sub>FRMS</sub>	RMS current	T <sub>c</sub> =85°C		1267	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	21000	A
			150	19000	A
I <sup>2</sup> t	I <sup>2</sup> t	Sine wave, 10 ms Without reverse voltage	25	2205 x 10 <sup>3</sup>	A <sup>2</sup> s
			150	1805 x 10 <sup>3</sup>	A <sup>2</sup> s
V <sub>F</sub>	Forward voltage	On-state current = 2000A	25	1.24	V
V <sub>F(TO)</sub>	Threshold voltage		150	0.78	V
r <sub>F</sub>	Forward slope resistance		150	0.23	mΩ
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance, sin 180°	Junction to case, per arm per module		0.062 0.031	°C/W
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, per arm per module		0.02 0.01	°C/W
T <sub>j</sub>	Max. junction temperature			150	°C
T <sub>stg</sub>	Storage temperature			-40 .... 150	°C
V <sub>ISOL</sub>	Insulation test voltage, RMS	F=50Hz, 1min		3.0	KV
M1	Mounting torque			6 ± 15%	Nm
M2	Terminal connection torque			12 ± 10%	Nm
W	Weight (Approx.)			1480	gm
	File No.			E505556	
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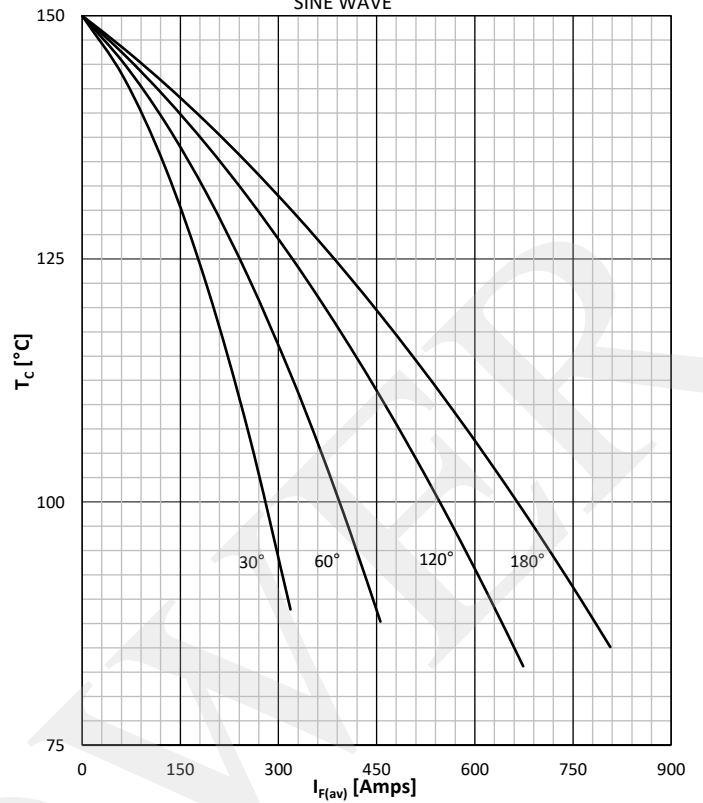
DISSIPATION CHARACTERISTICS

SINE WAVE



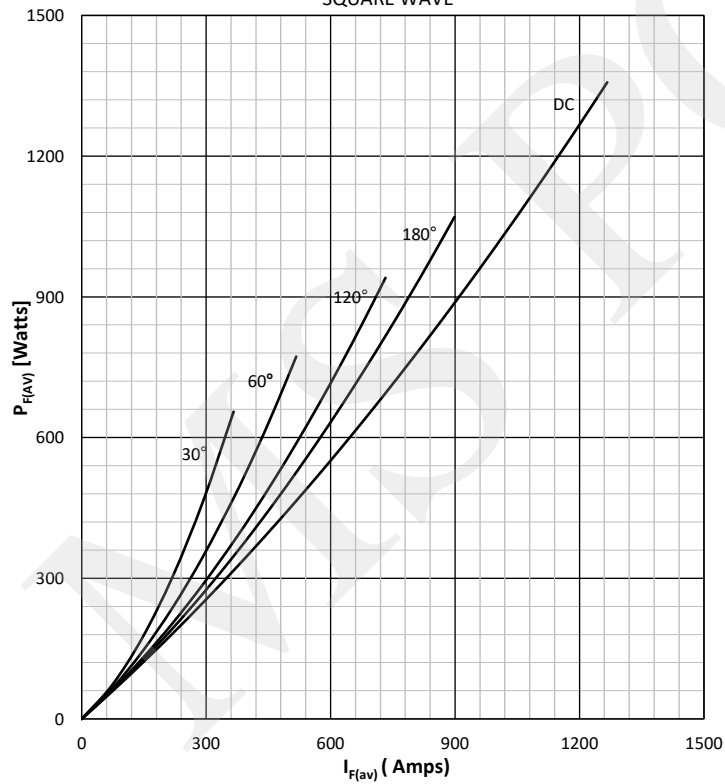
FORWARD CURRENT DERATING CURVE

SINE WAVE



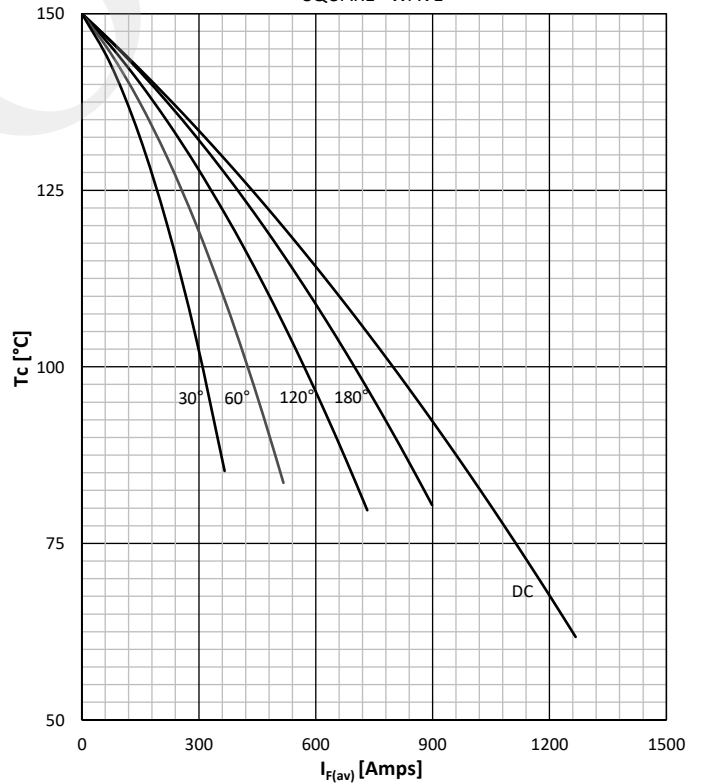
DISSIPATION CHARACTERISTICS

SQUARE WAVE

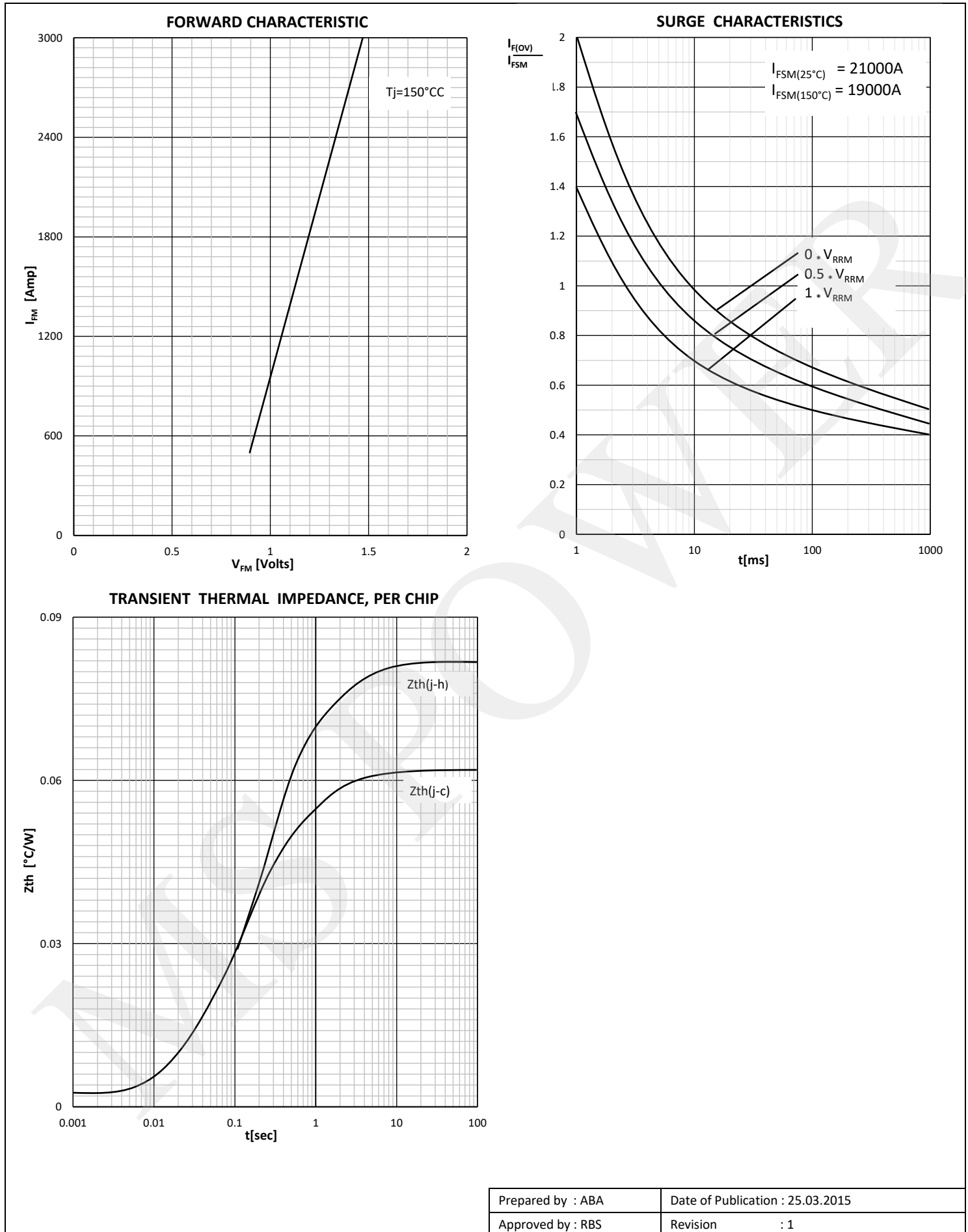


FORWARD CURRENT DERATING CURVE

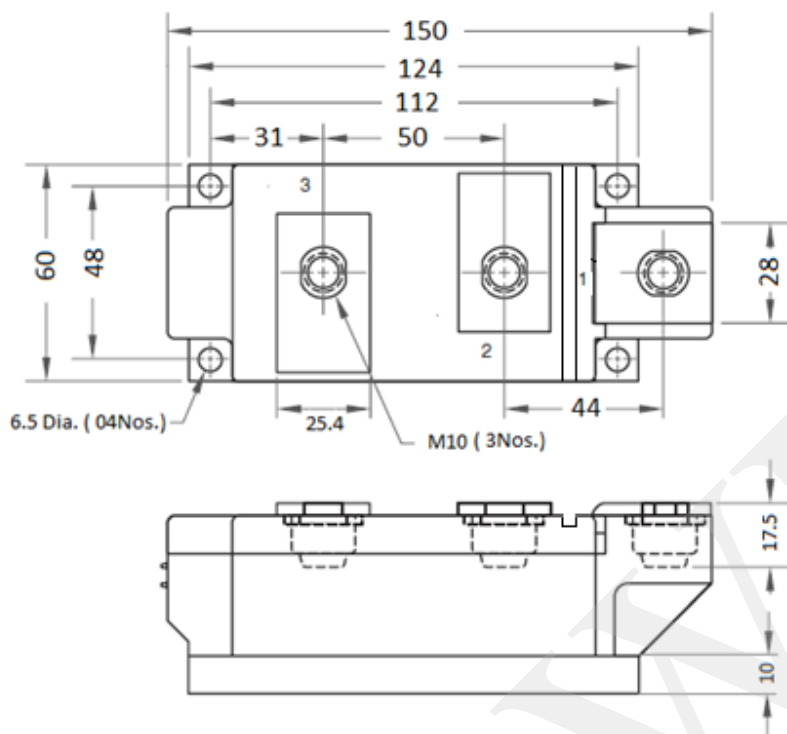
SQUARE WAVE



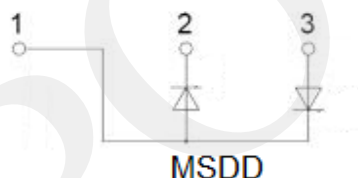
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## Outline



Note : All dimensions are in mm.  
Tolerance :  $\pm 0.5\text{mm}$



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