



**Key Parameters**

$V_{RRM}$	= 1800V
$I_{F(AV)}$	= 140A
$I_{FSM}$	= 4000A
$V_{F(TO)}$	= 0.90V
$r_F$	= 1.5m $\Omega$

**Features**

- Full blocking capability over wide temperature range
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability

**Applications**

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

**Ordering Information**

MS	DD	140	S	XX	KK
Fixed code	DD- Diode- Diode Module	Current Code	Technology S = Solder Bond Technology	Voltage Code Code X 100 = $V_{RRM}$	None - Standard connection AA - Common Anode KK - Common Cathode

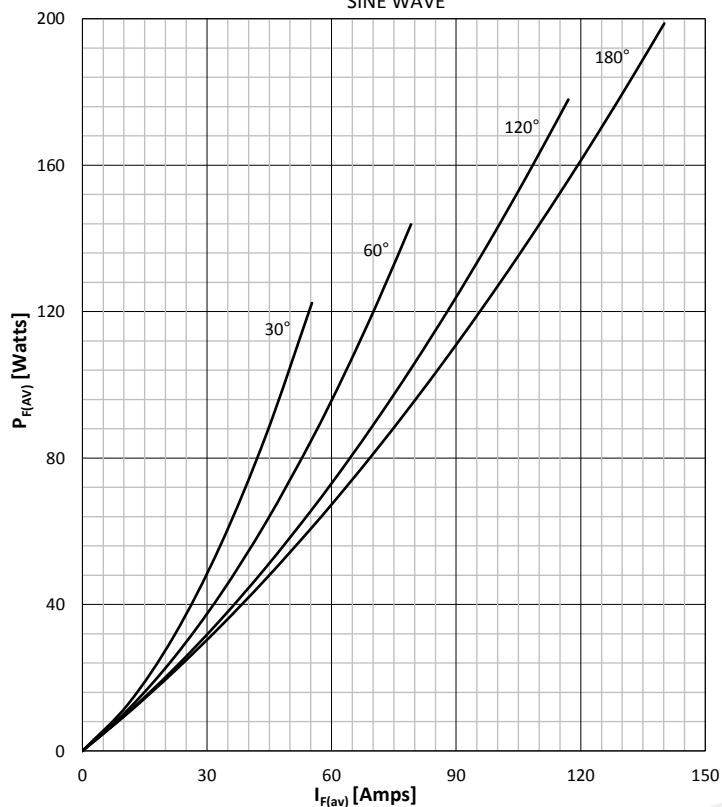
Order Code MS DD140S18KK : 1800V  $V_{RRM}$ , Common Cathode , Diode-Diode Module

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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	20	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin ,50 Hz, T <sub>c</sub> =100°C		140	A
I <sub>FRMS</sub>	RMS current			220	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	4000	A
			150	3200	A
I <sup>2</sup> t	I <sup>2</sup> t	Sine wave, 10 ms Without reverse voltage	25	80000	A <sup>2</sup> s
			150	51200	A <sup>2</sup> s
V <sub>F</sub>	Forward voltage	On-state current = 300A	25	1.45	V
V <sub>F(TO)</sub>	Threshold voltage		150	0.90	V
r <sub>F</sub>	Forward slope resistance		150	1.5	mΩ
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance, sin 180°	Junction to case, per arm per module		0.25 0.13	°C/W
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, per arm per module		0.10 0.05	°C/W
T <sub>j</sub>	Max. junction temperature			150	°C
T <sub>stg</sub>	Storage temperature			-40 .... 125	°C
V <sub>ISOL</sub>	Insulation test voltage, RMS	F=50Hz, 1min		2.5	KV
M1	Mounting torque			5 ± 15%	Nm
M2	Terminal connection torque			5 ± 15%	Nm
W	Weight (Approx.)			165	gm
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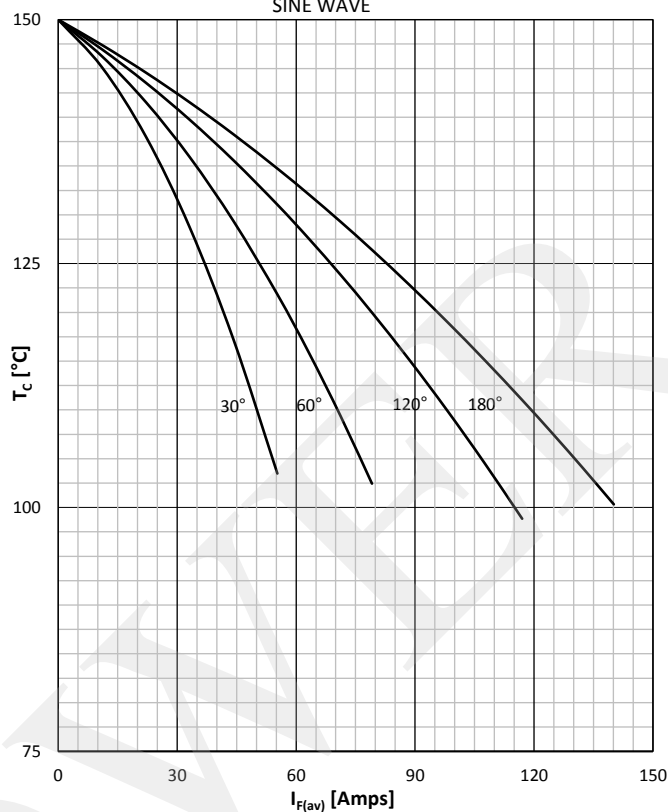
DISSIPATION CHARACTERISTICS

SINE WAVE



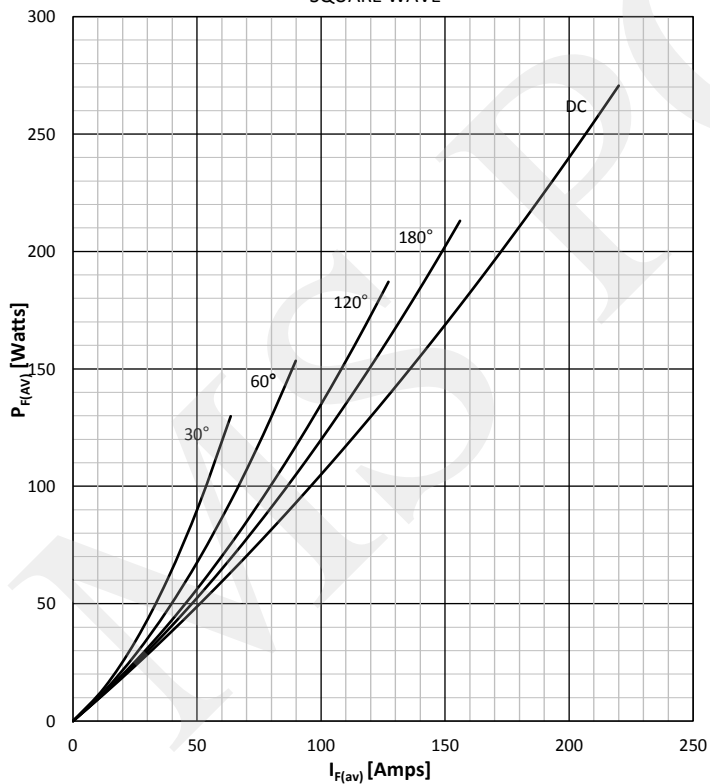
FORWARD CURRENT DERATING CURVE

SINE WAVE



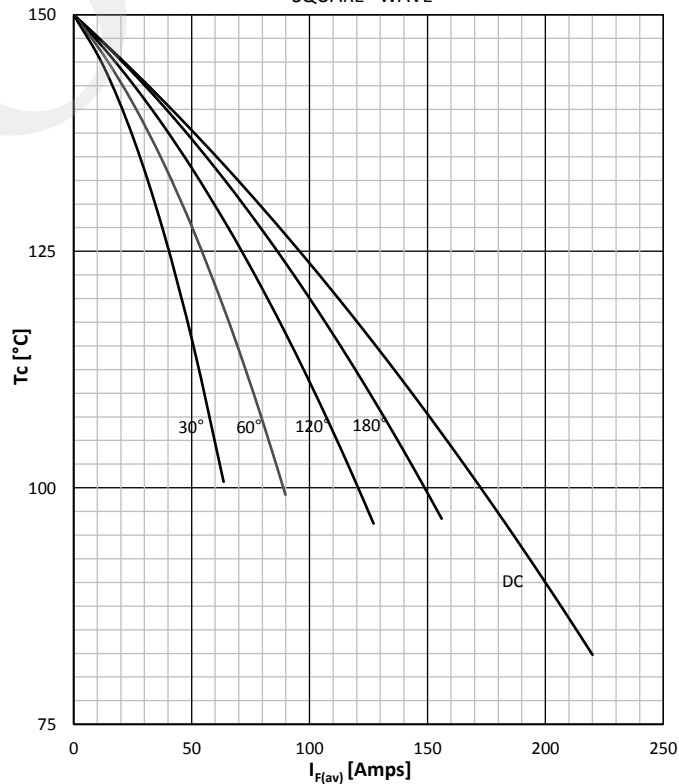
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



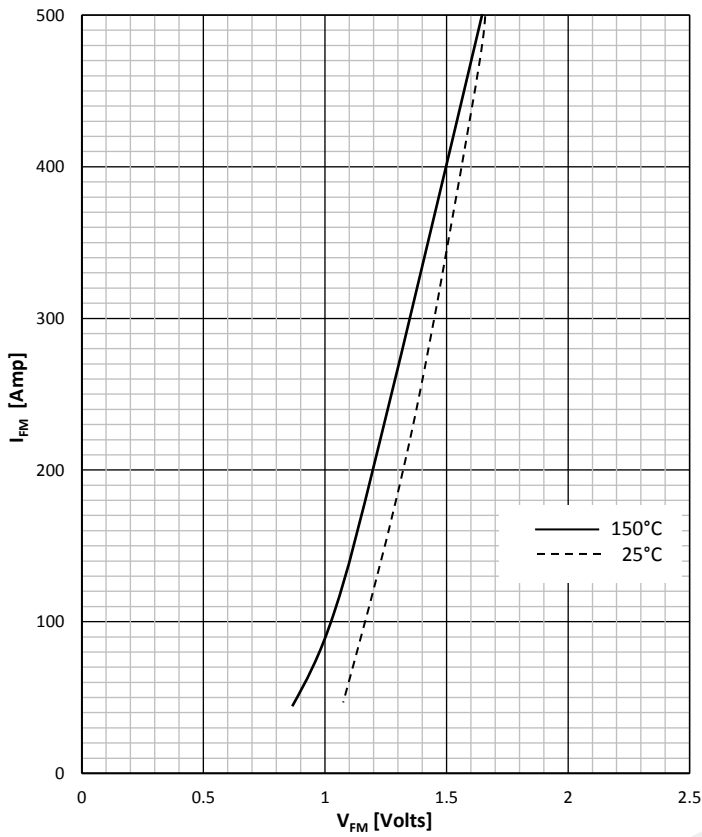
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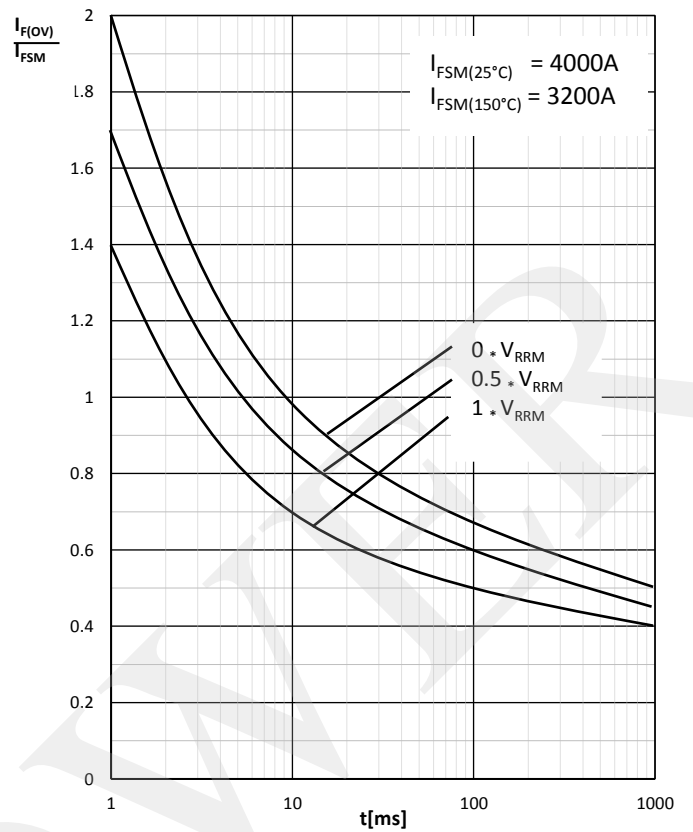
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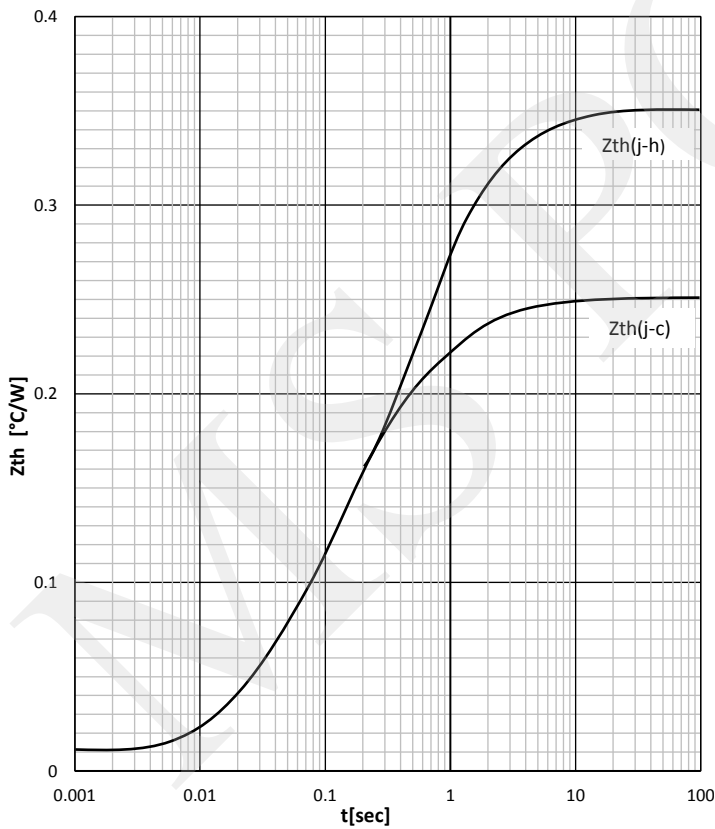
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER CHIP



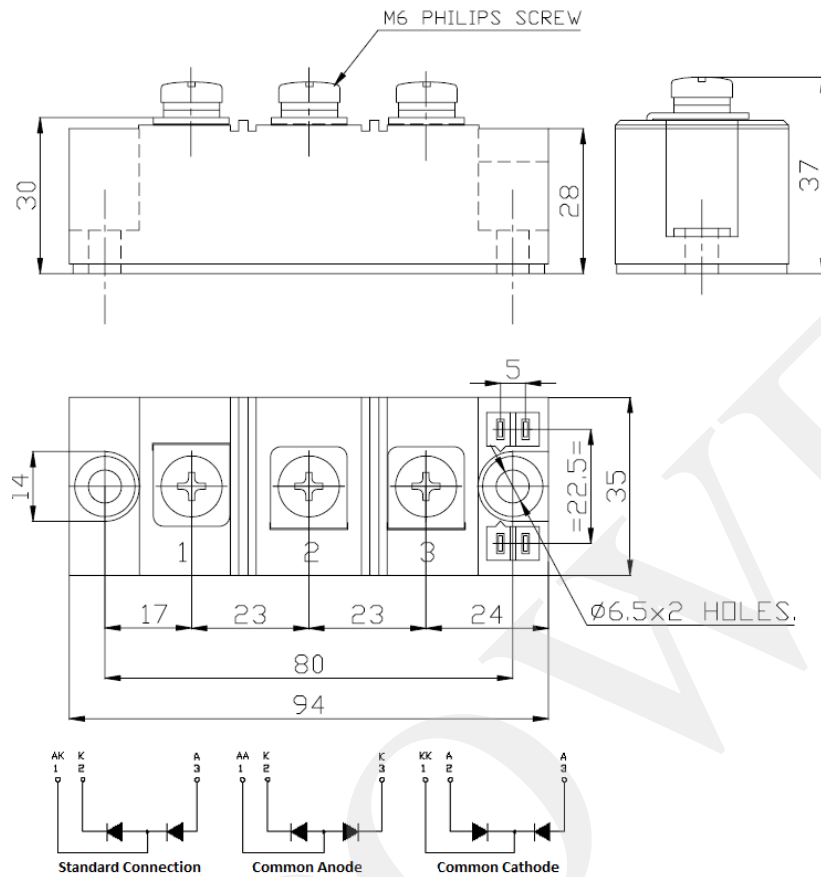
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