



Key Parameters

V_{RRM}	= 1800V
$I_{F(AV)}$	= 170A
I_{FSM}	= 6000A
$V_{F(TO)}$	= 0.85V
r_F	= 1.3m Ω

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	170	S	X X	X X
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

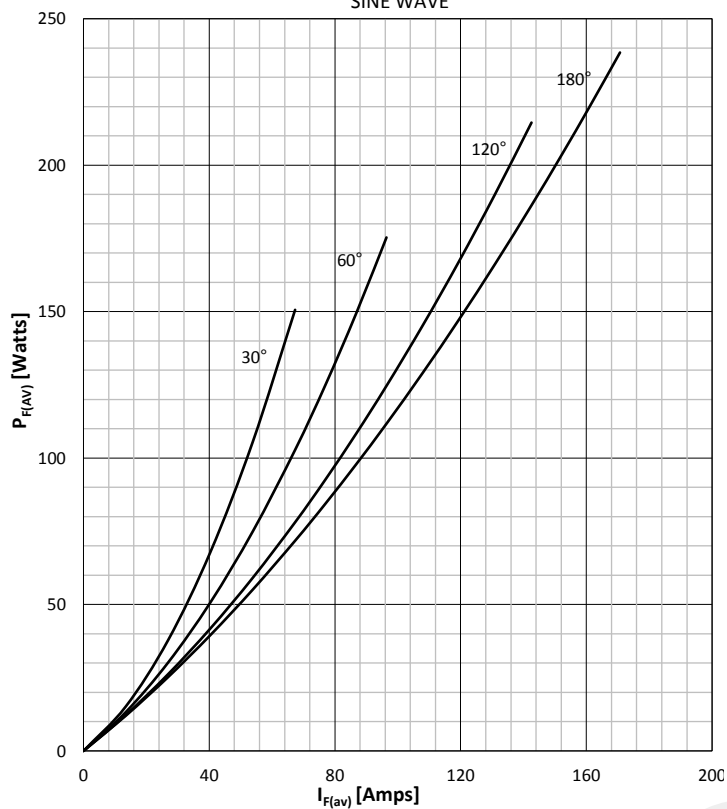
Order Code MS DD170S18 KK : 1800V V_{RRM} , Common Cathode , Diode-Diode Module

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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	200 - 1800	V
V _{RSM}	Non-repetitive peak reverse voltage		150	300 - 1900	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	150	20	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, T _c =100°C		170	A
I _{FRMS}	RMS current			268	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	6000	A
			150	5200	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	180000	A ² s
			150	135200	A ² s
V _F	Forward voltage	On-state current = 400A	25	1.44	V
V _{F(TO)}	Threshold voltage		150	0.85	V
r _F	Forward slope resistance		150	1.3	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, per arm per module		0.21 0.11	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, per arm per module		0.10 0.05	°C/W
T _j	Max. junction temperature			150	°C
T _{stg}	Storage temperature			-40 125	°C
V _{ISOL}	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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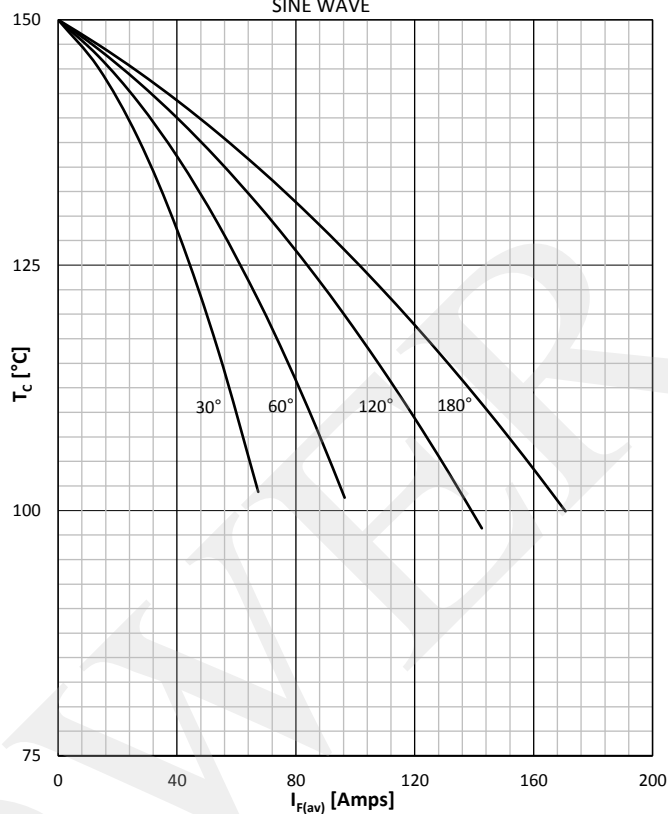
DISSIPATION CHARACTERISTICS

SINE WAVE



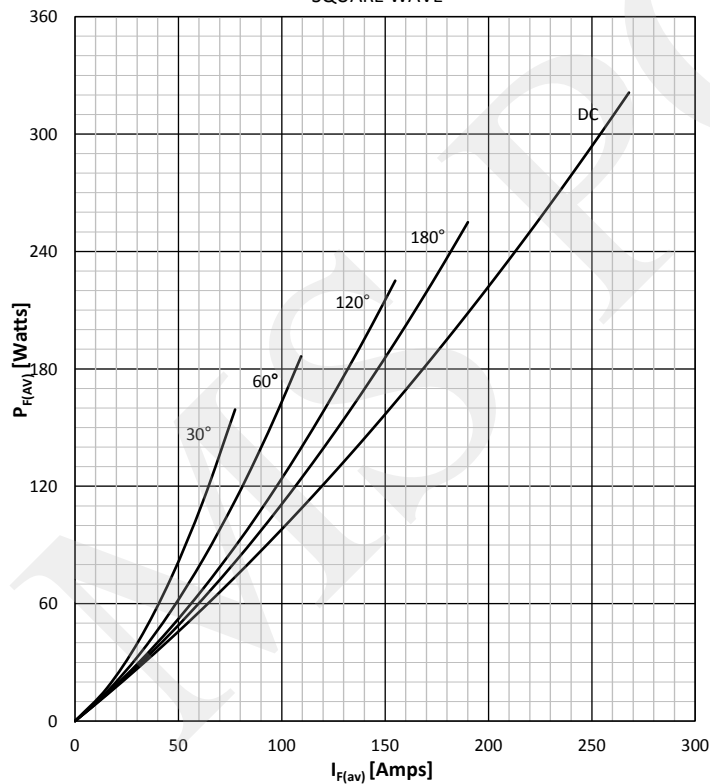
FORWARD CURRENT DERATING CURVE

SINE WAVE



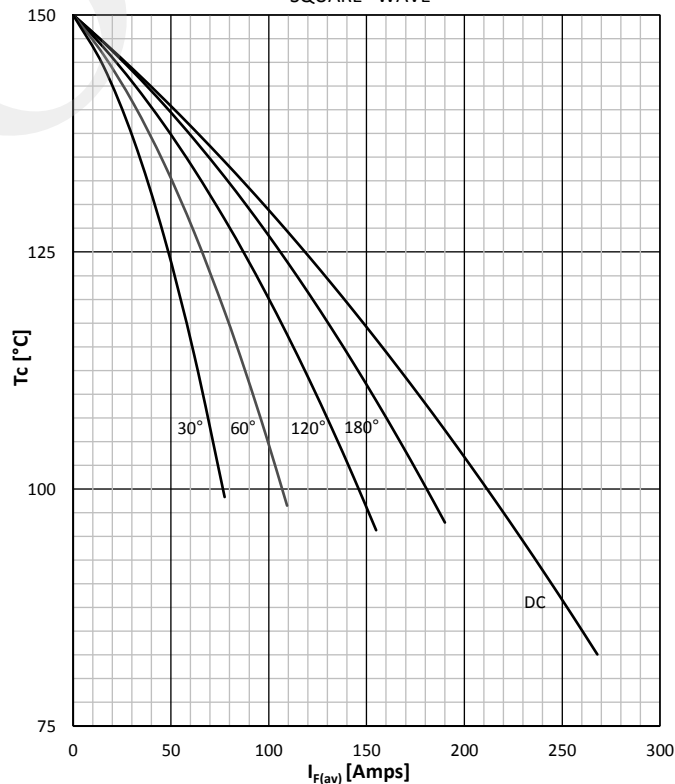
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



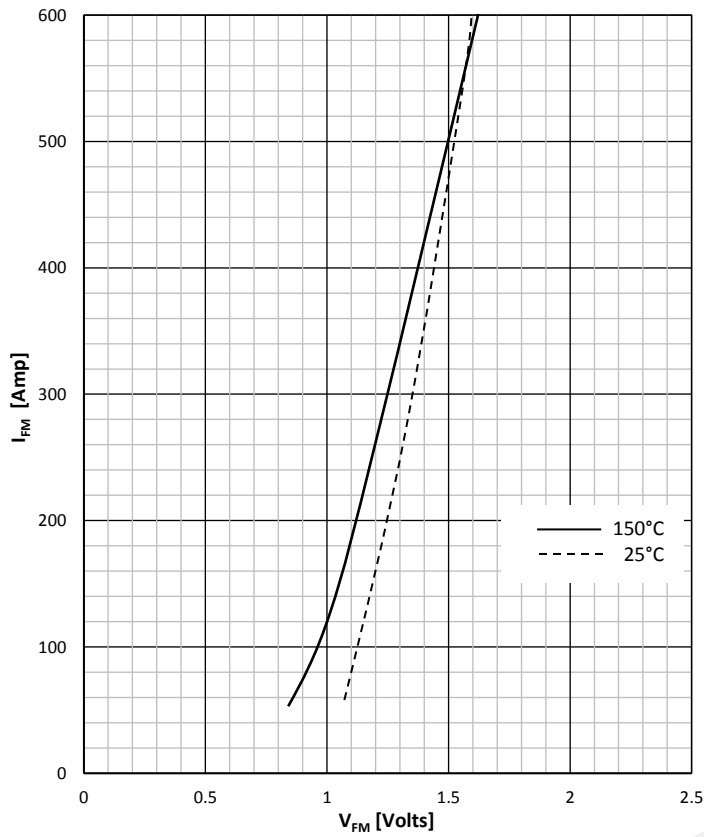
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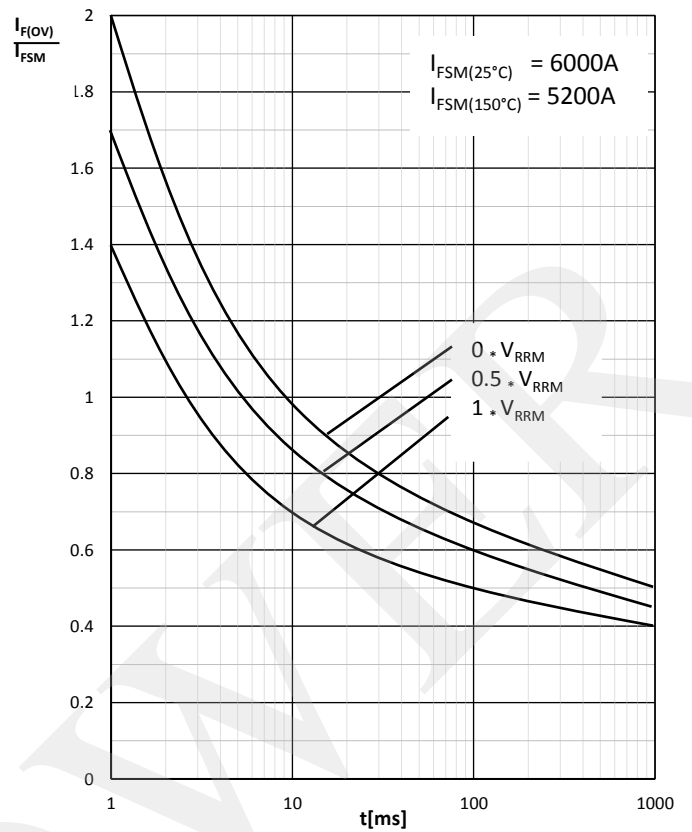
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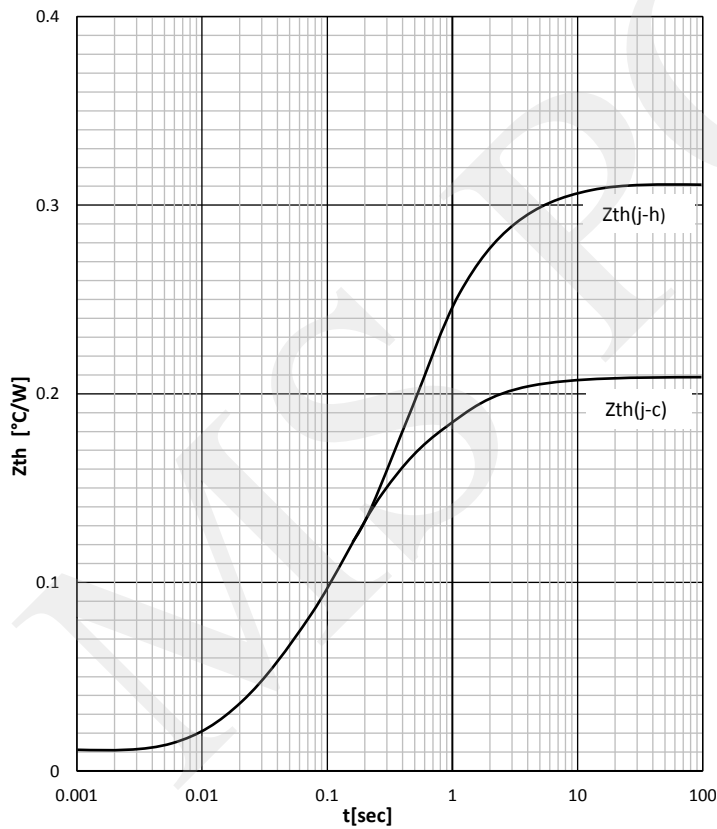
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

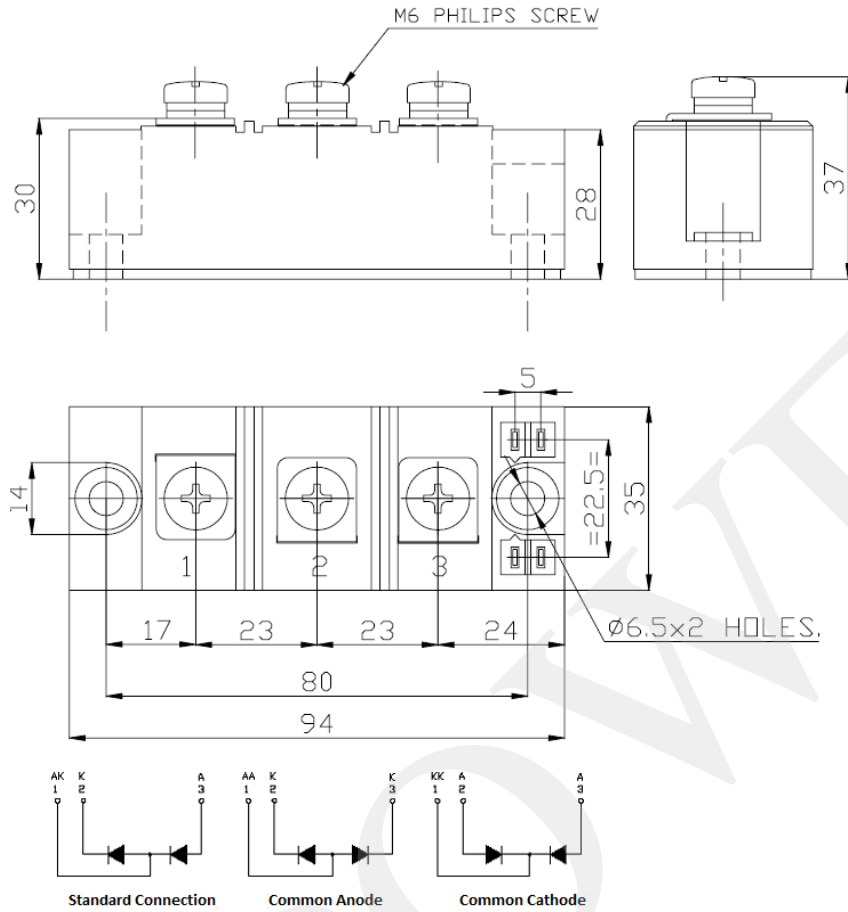


TRANSIENT THERMAL IMPEDANCE, PER CHIP



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