



**Key Parameters**

$V_{RRM}$	= 1800V
$I_{F(AV)}$	= 95A
$I_{FSM}$	= 1150A
$V_{F(TO)}$	= 0.85V
$r_F$	= 3.0mΩ

**Features**

- Full blocking capability over wide temperature range
- Hermetic metal case with glass insulator
- Threaded stud

**Applications**

- Power Supplies
- Uncontrolled Rectifiers
- Battery Chargers

**Ordering Information**

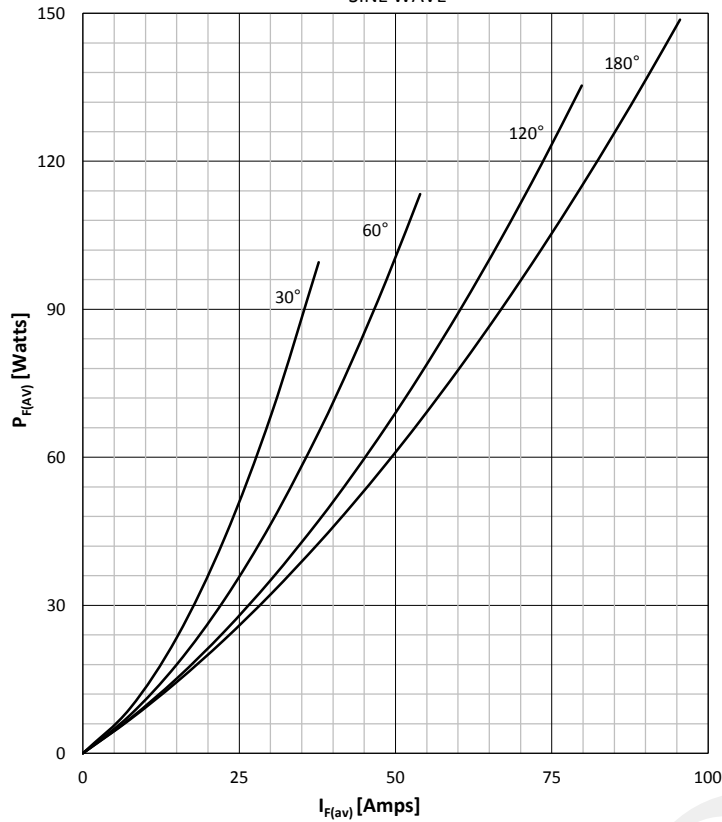
MS D	70	N	XX	M	B
Rectifier Diode	Current code	Polarity R= Stud Anode N= Stud Cathode	Voltage Code Code X 100 = $V_{RRM}$	Stud Threads M = Stud M8 X 1.25 U = 1/4" UNF	Technology B = Solder Bond Technology
Order Code MS D70N16MB : 1600V $V_{RRM}$ , Metric Stud, Diode with stud Cathode					

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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		180	200 - 1800	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		180	300 - 1900	V
I <sub>RRM</sub>	Repetitive peak reverse current	V = V <sub>RRM</sub>	180	10	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin ,50 Hz, T <sub>c</sub> =100°C T <sub>c</sub> = 125°C		95 70	A
I <sub>FRMS</sub>	RMS current			150	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	1150	A
			180	1000	A
I <sup>2</sup> t	I <sup>2</sup> t	Sine wave, 10 ms Without reverse voltage	25	6612	A <sup>2</sup> s
			180	5000	A <sup>2</sup> s
V <sub>F</sub>	Forward voltage	On-state current = 210A	180	1.50	V
V <sub>F(TO)</sub>	Threshold voltage		180	0.85	V
r <sub>F</sub>	Forward slope resistance		180	3.0	mΩ
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance, sin 180°	Junction to case		0.55	°C/W
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink		0.20	°C/W
T <sub>j</sub>	Max. junction temperature			180	°C
T <sub>stg</sub>	Storage temperature			-40 .... 180	°C
M	Mounting torque			4	NM
W	Weight (Approx.)			40	gm
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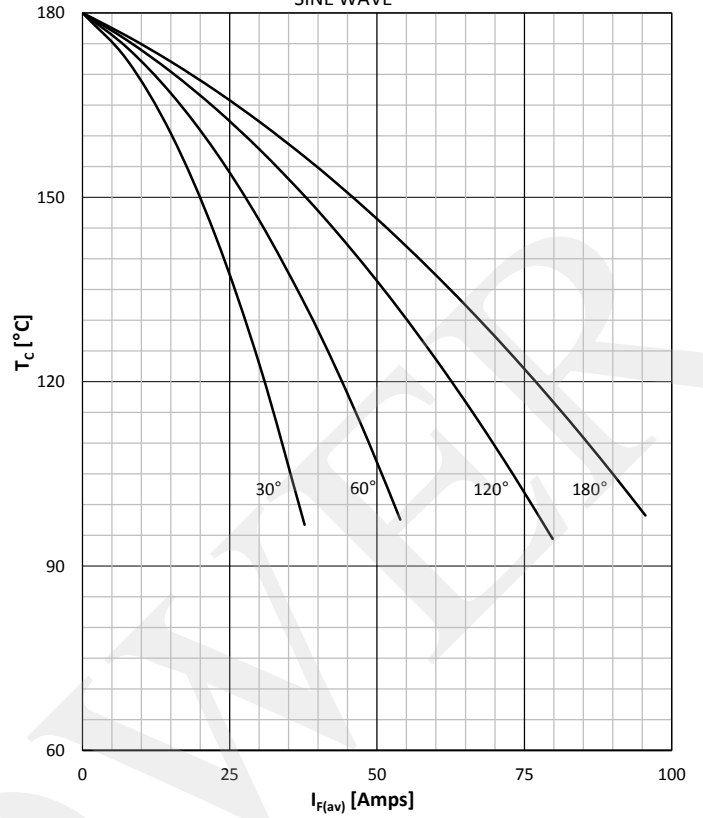
DISSIPATION CHARACTERISTICS

SINE WAVE



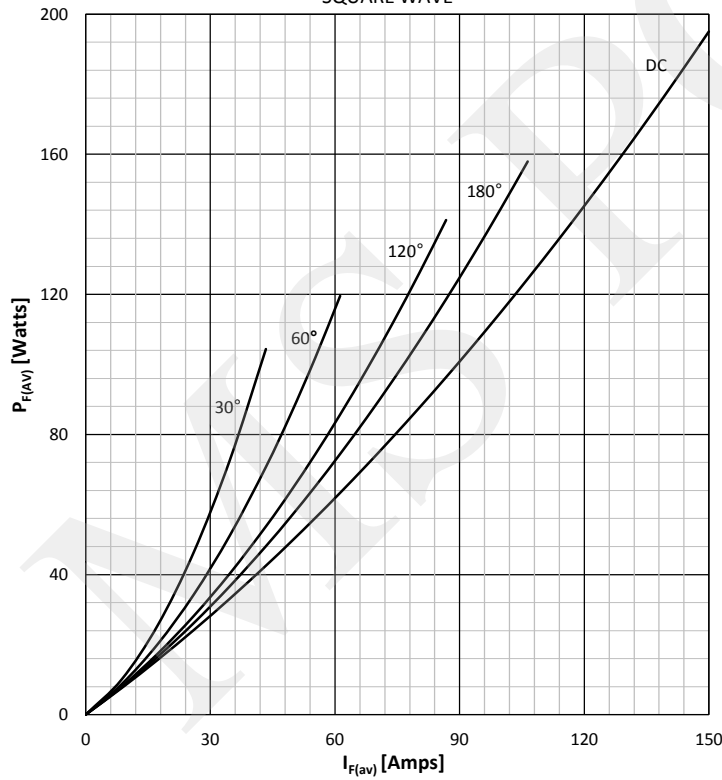
FORWARD CURRENT DERATING CURVE

SINE WAVE



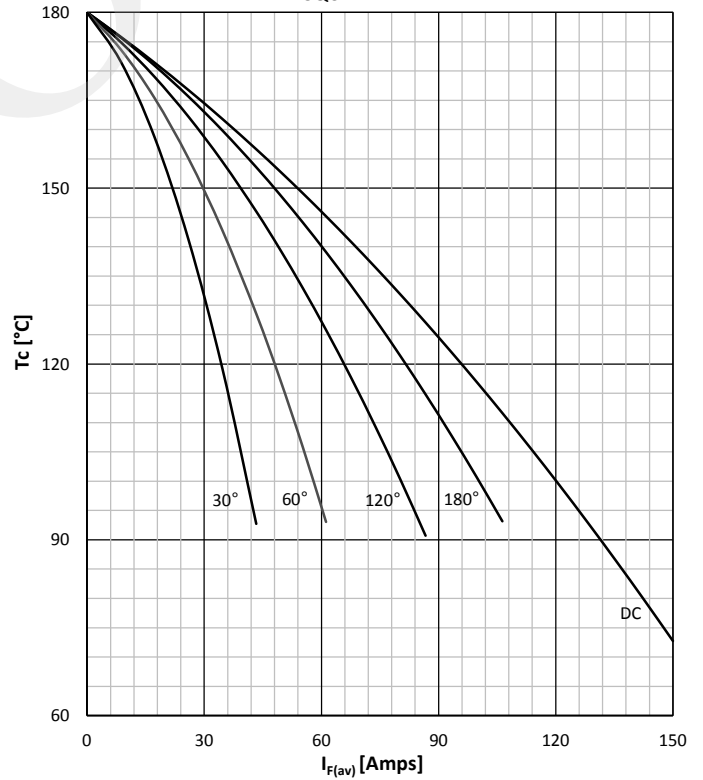
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



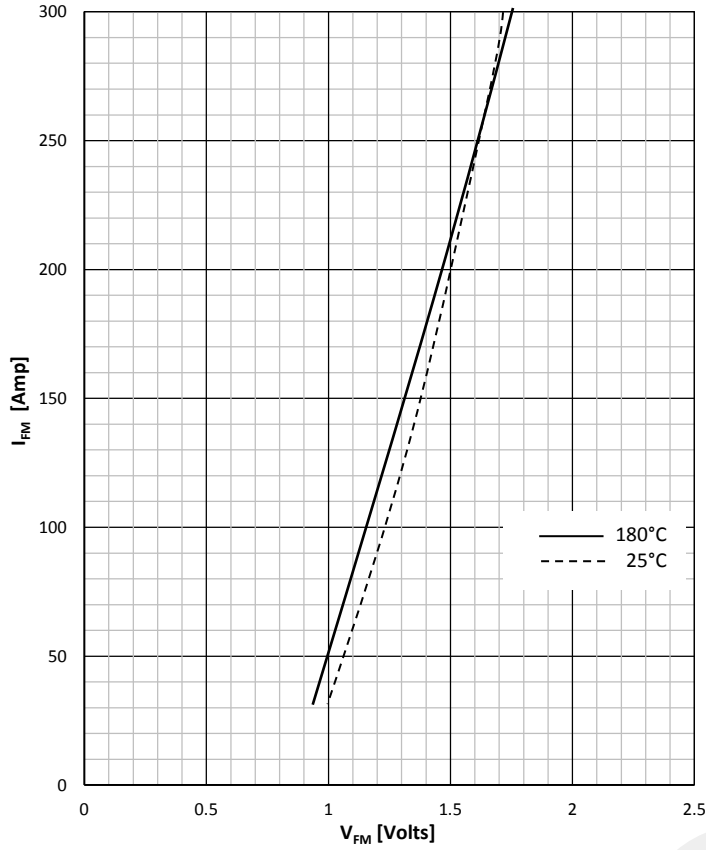
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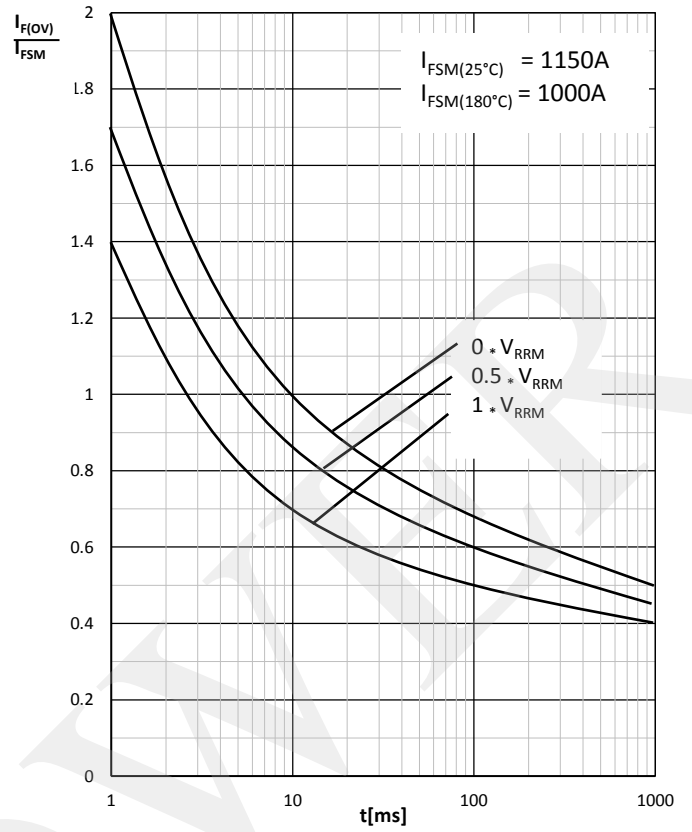
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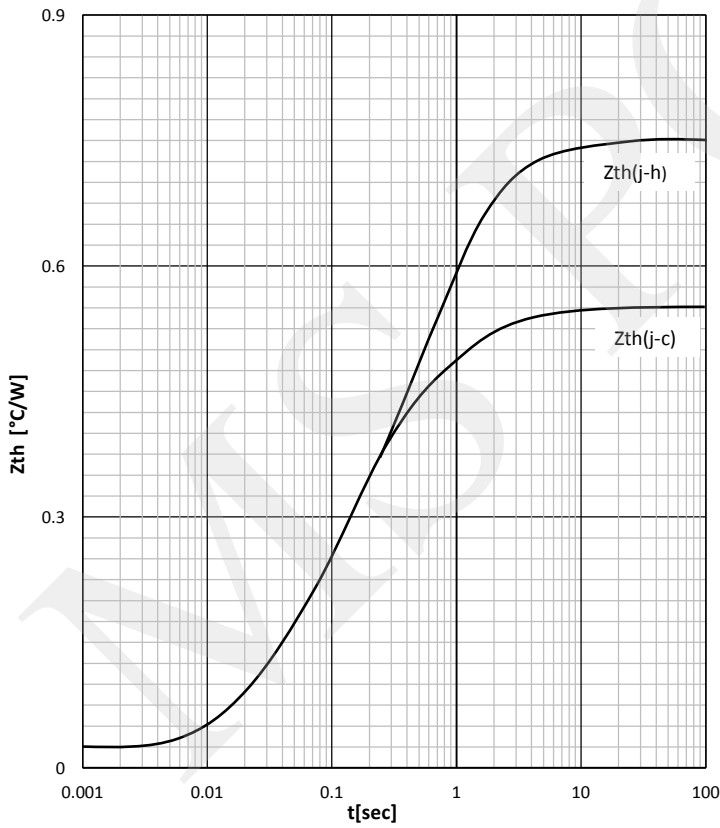
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

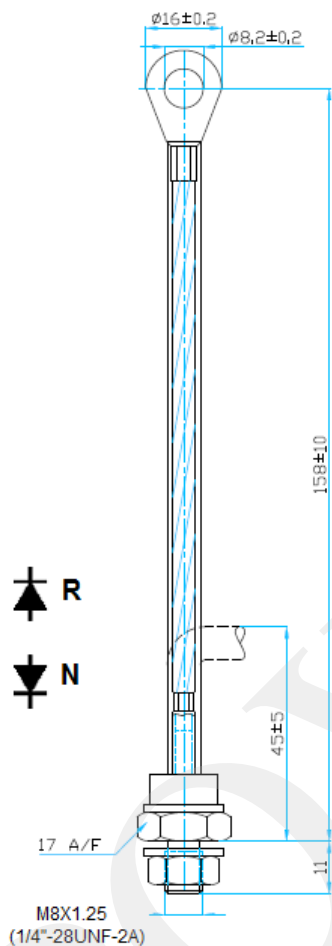


TRANSIENT THERMAL IMPEDANCE



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Outline



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