

**Key Parameters**

$V_{RRM}$	= 400V
$I_{F(AV)}$	= 10500A
$I_{FSM}$	= 75000A
$V_{F(TO)}$	= 0.81V
$r_F$	= 0.026mΩ

**Features**

- Full blocking capability over wide temperature range
- Very low thermal resistance
- High Forward current capability
- Very low threshold voltage and slope resistance

**Applications**

- Uncontrolled Rectifiers
- Welding

**Ordering Information**

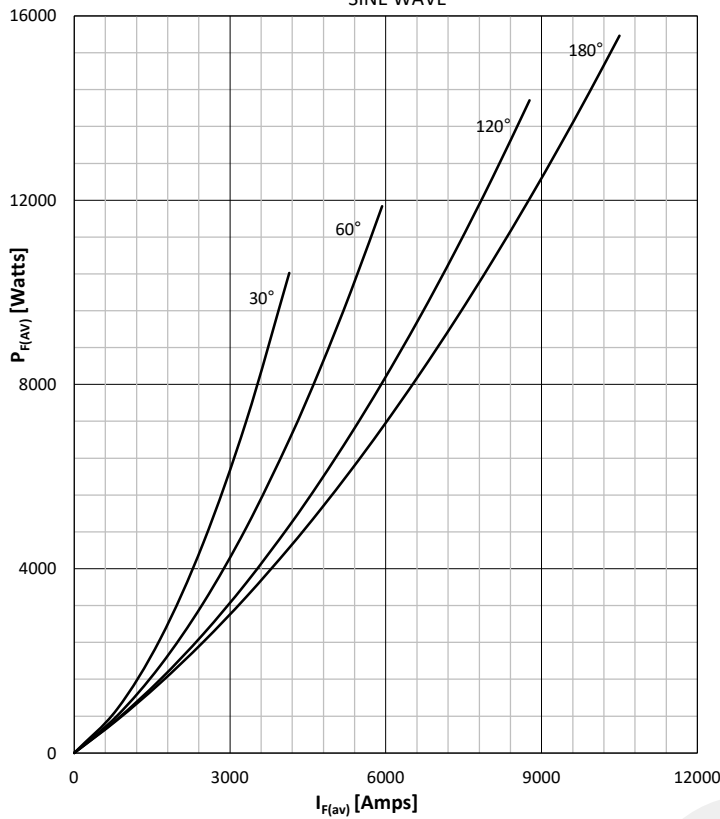
MS DW	10500	C	XX
Welding Diode	Current code	C - Capsule package with Alloyed silicon technology	Voltage Code Code X 100 = $V_{RRM}$
Order Code MS DW10500C04 : 400V $V_{RRM}$ , Capsule Welding Diode			

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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		175	200 - 400	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		175	200 - 400	V
I <sub>RRM</sub>	Repetitive peak reverse current	V = V <sub>RRM</sub>	175	50	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, T <sub>c</sub> =85°C, double side cooled		10500	A
I <sub>FRMS</sub>	RMS current			16485	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	75000	A
			175	70000	A
I <sup>2</sup> t	I <sup>2</sup> t	Sine wave, 10 ms Without reverse voltage	25	28125 x 10 <sup>3</sup>	A <sup>2</sup> s
			175	24500 x 10 <sup>3</sup>	A <sup>2</sup> s
V <sub>F</sub>	Forward voltage	On-state current = 8000A	25	0.92 - 1.05	V
V <sub>F(TO)</sub>	Threshold voltage		175	0.81	V
r <sub>F</sub>	Forward slope resistance		175	0.026	mΩ
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance, sin 180°	Junction to case, double side cooled		0.0058	°C/W
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, double side cooled		0.0025	°C/W
T <sub>j</sub>	Max. junction temperature			175	°C
T <sub>stg</sub>	Storage temperature			-40 .... 175	°C
M	Clamping force			40 - 50	KN
W	Weight (Approx.)			110	gm
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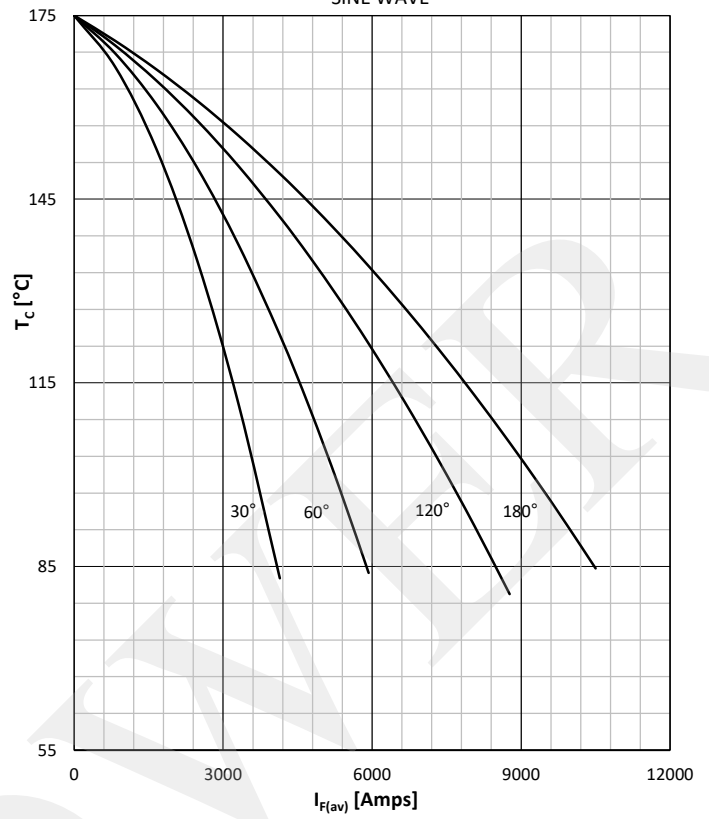
DISSIPATION CHARACTERISTICS

SINE WAVE



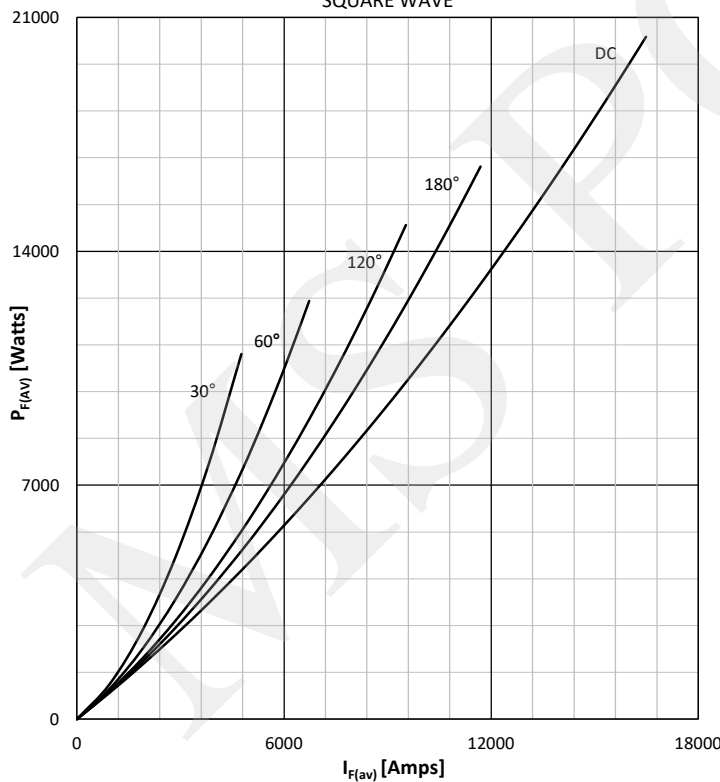
FORWARD CURRENT DERATING CURVE

SINE WAVE



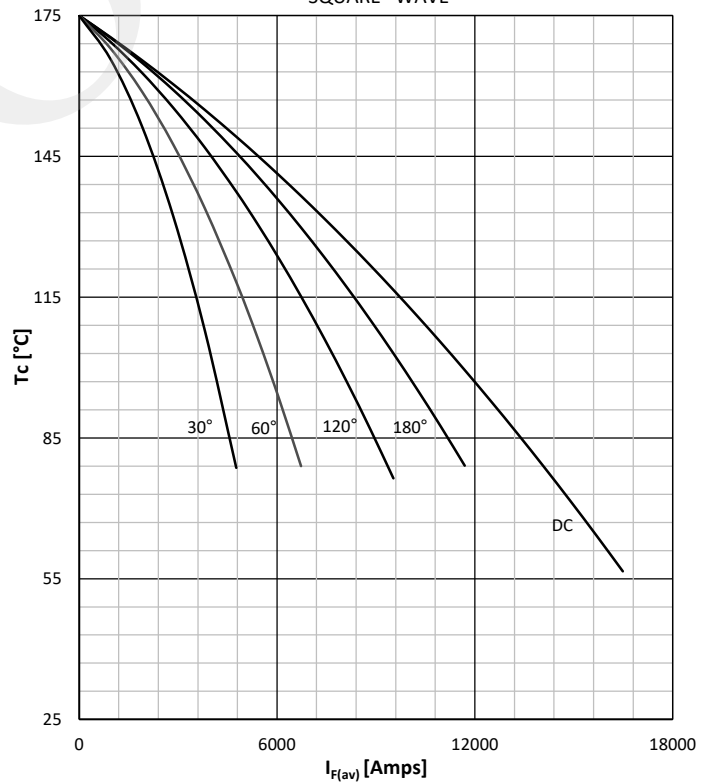
DISSIPATION CHARACTERISTICS

SQUARE WAVE



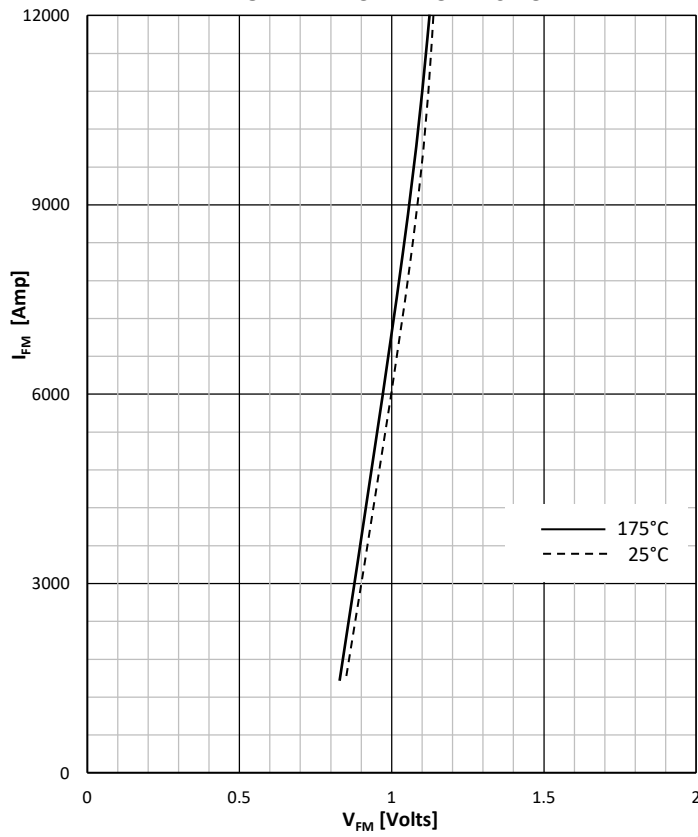
FORWARD CURRENT DERATING CURVE

SQUARE WAVE

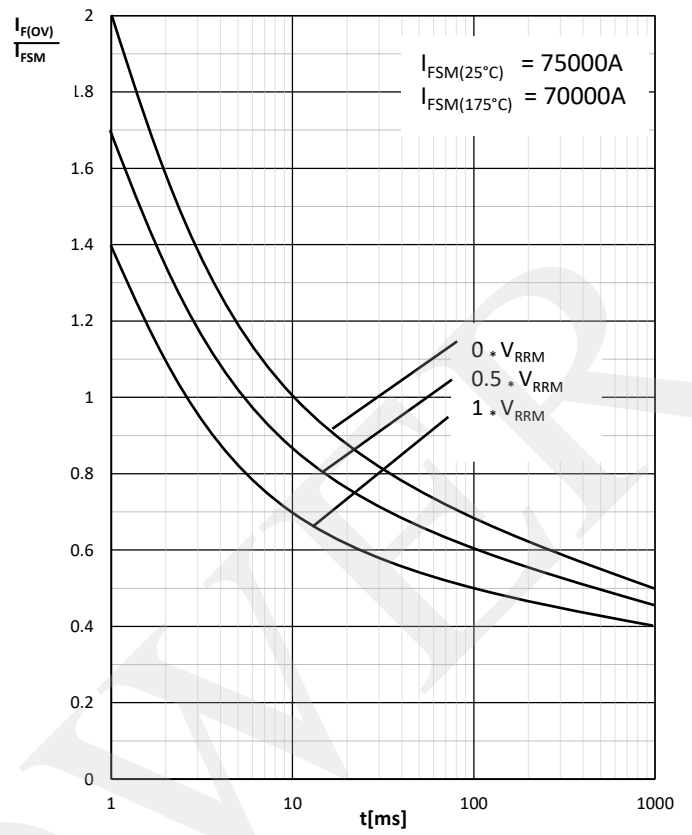


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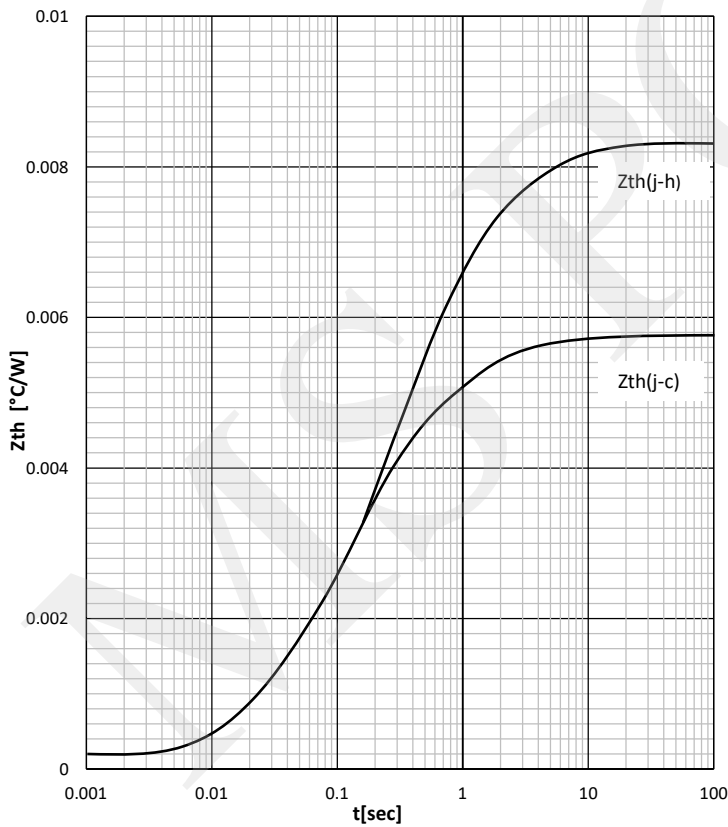
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

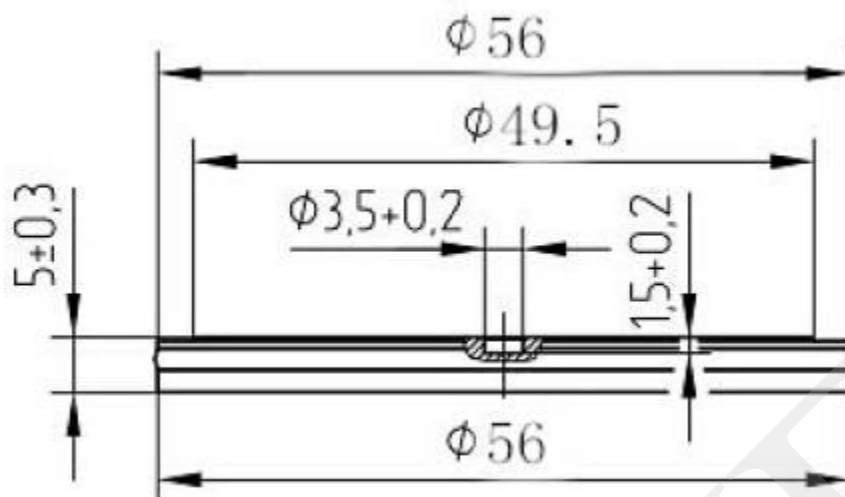


TRANSIENT THERMAL IMPEDANCE, DSC



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