



**Key Parameters**

$V_{RRM}$	= 1600V
$I_{F(AV)}$	= 150A
$I_{FSM}$	= 4000A
$V_{F(TO)}$	= 0.82V
$r_F$	= 0.90mΩ

**Features**

- Full blocking capability over wide temperature range
- Threaded Stud

**Applications**

- Power Supplies
- Uncontrolled Rectifiers
- Battery Chargers

**Ordering Information**

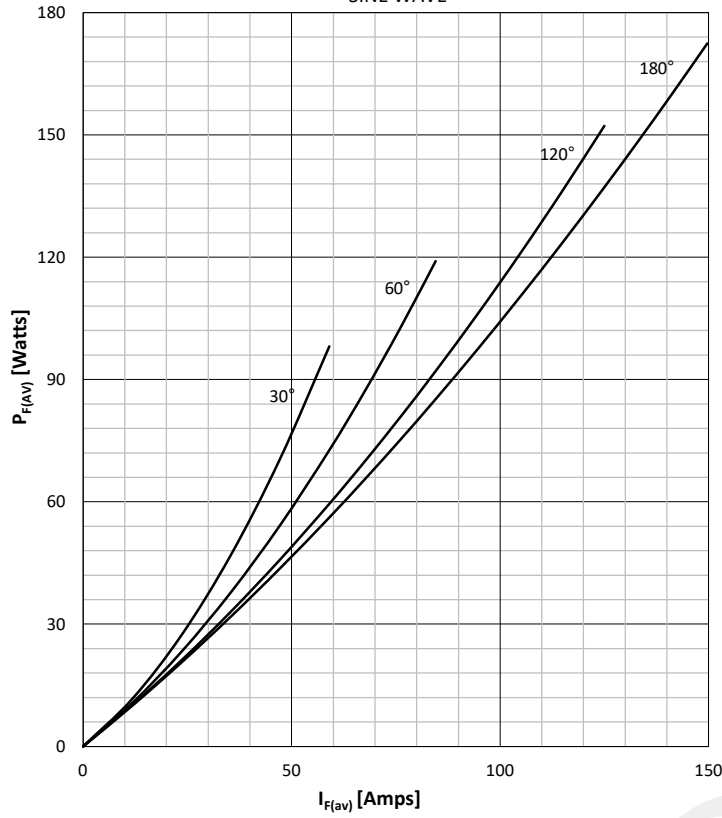
MS D	154	N	X X	U	B
Rectifier Diode	Current code	Polarity R= Base Anode N= Base Cathode	Voltage Code Code X 100 = $V_{RRM}$	Stud Threads U = 3/8"-24 UNF 2A U1 = 1/2"-20UNF 2A	Technology B = Solder Bond Technology
Order Code MS D154N16UB : 1600V $V_{RRM}$ , UNF Stud, Diode with base Cathode					

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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 - 1600	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		180	300 - 1700	V
I <sub>RRM</sub>	Repetitive peak reverse current	V = V <sub>RRM</sub>	180	20	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin ,50 Hz, T <sub>c</sub> =130°C		150	A
I <sub>FRMS</sub>	RMS current	T <sub>c</sub> =130°C		235	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	4000	A
			180	3600	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
			180	64800	A <sup>2</sup> s
V <sub>F</sub>	Forward voltage	On-state current = 470A	180	1.25	V
V <sub>F(TO)</sub>	Threshold voltage		180	0.82	V
r <sub>F</sub>	Forward slope resistance		180	0.90	mΩ
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance, sin 180°	Junction to case		0.28	°C/W
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink		0.05	°C/W
T <sub>j</sub>	Max. junction temperature			180	°C
T <sub>stg</sub>	Storage temperature			-40 .... 180	°C
M	Mounting torque			13 - 14	NM
W	Weight (Approx.)			88	gm
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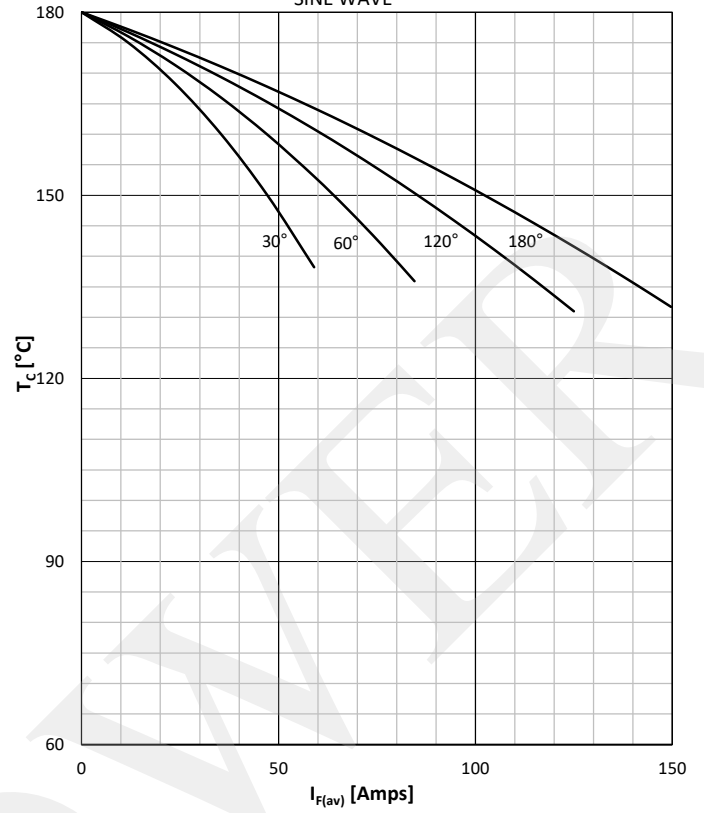
DISSIPATION CHARACTERISTICS

SINE WAVE



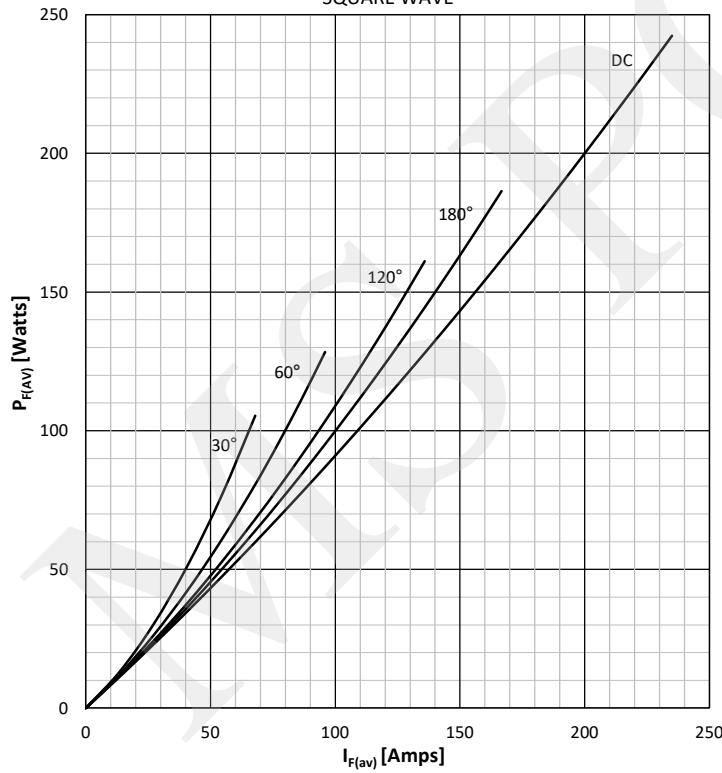
FORWARD CURRENT DERATING CURVE

SINE WAVE



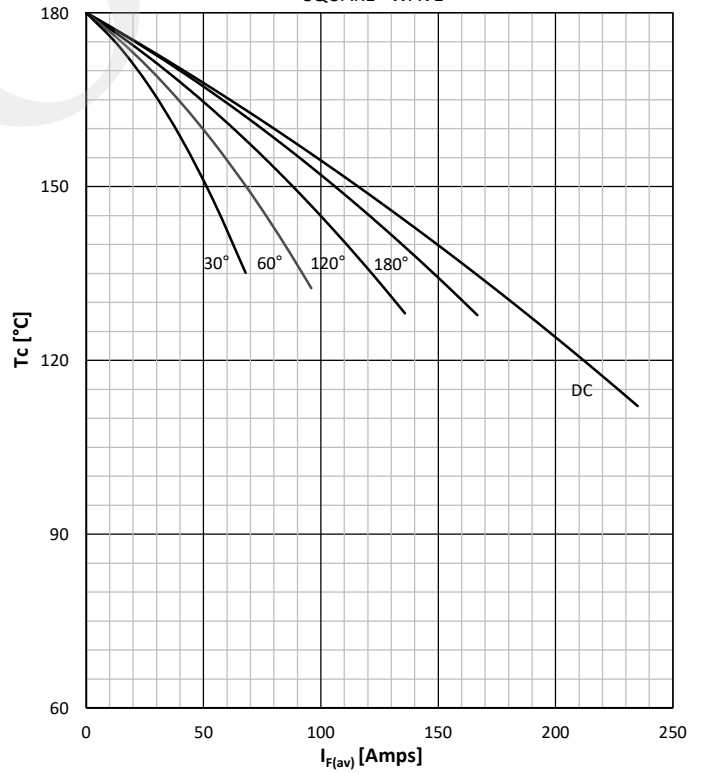
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



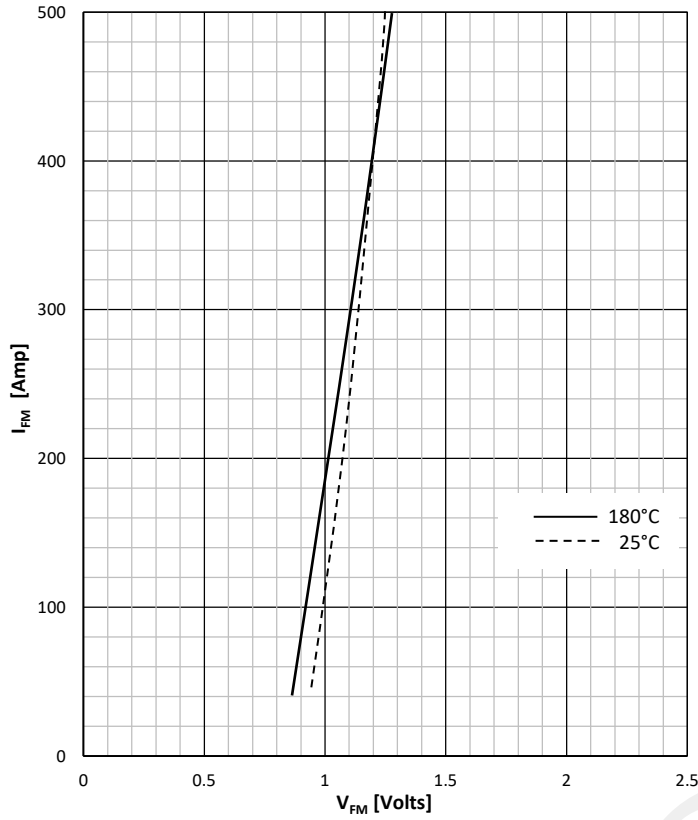
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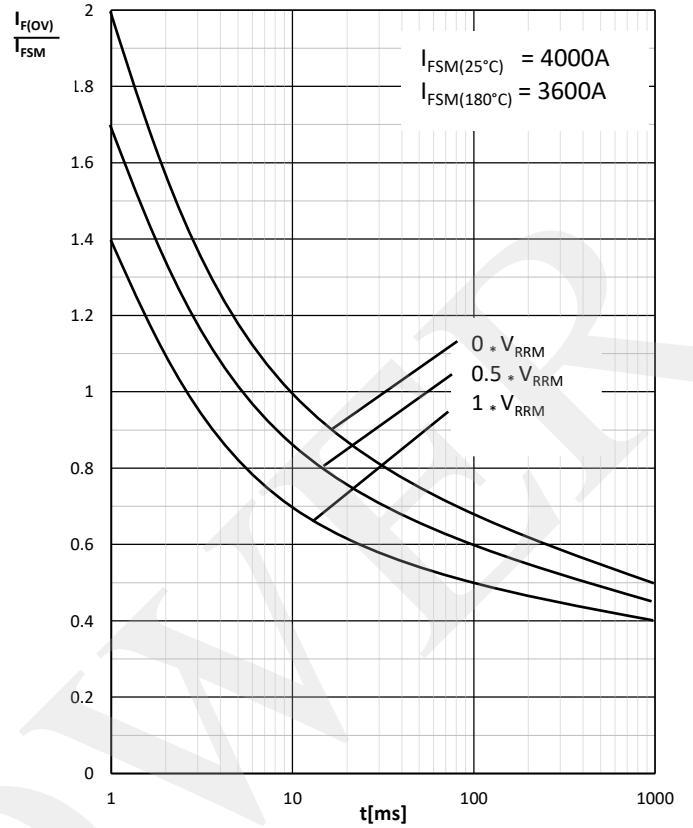
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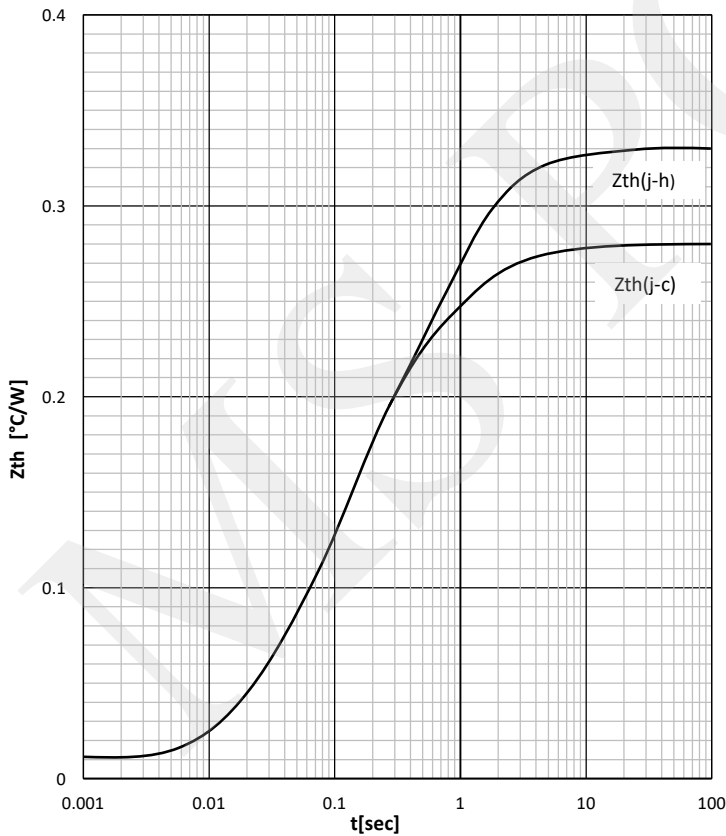
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



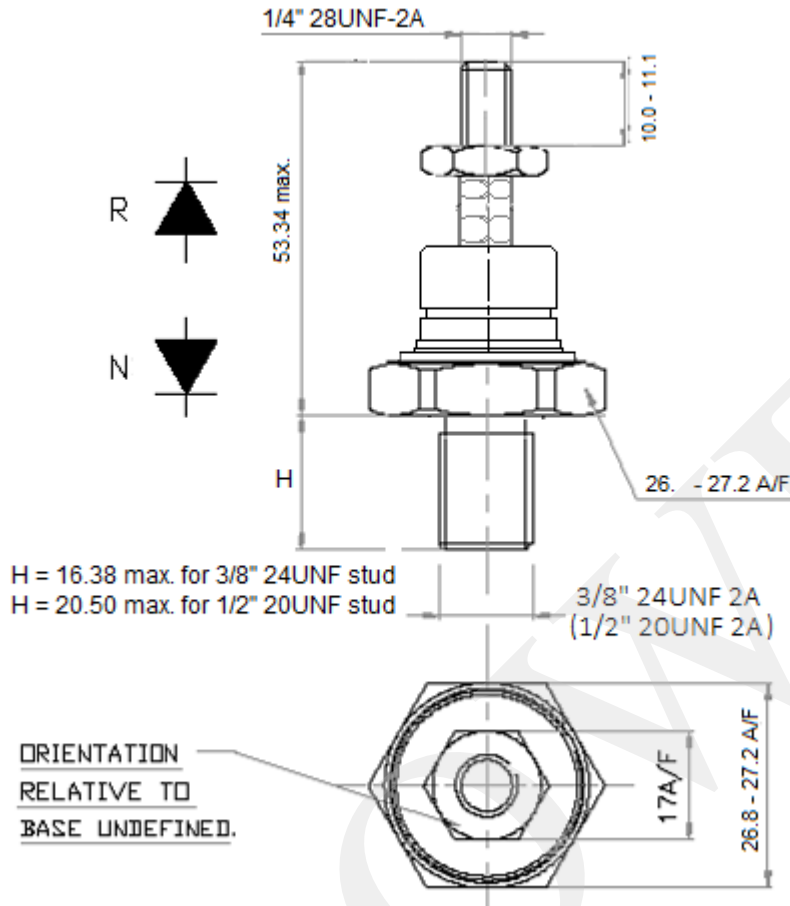
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Outline



**MS Power GmbH**

Mergenthalerallee 79-81  
65760 Eschborn, Germany  
Web: [www.mspowergroup.com](http://www.mspowergroup.com)  
Mail: [info@mspowergroup.de](mailto:info@mspowergroup.de)

**Sales & Enquiry:**

[sales@mspowergroup.de](mailto:sales@mspowergroup.de)

**Technical Support:**

[solution@mspowergroup.de](mailto:solution@mspowergroup.de)

**After sales Service:**

[service@mspowergroup.de](mailto:service@mspowergroup.de)

Phone: +49 (0) 6196/7768 666

Fax: +49 (0) 6196/7757 888



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