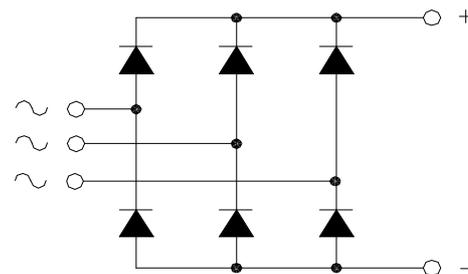


## MTS161.16SS5FIX6

### POWER RECTIFIER BRIDGE



**Output Current**            **160÷200A**  
**V<sub>RRM</sub>/V<sub>DRM</sub>**            **1600 V**

#### Features

- Full blocking capability over wide temperature range
- Heat transfer through isolated metal base plate
- Hard soldered joints for high reliability

#### Applications

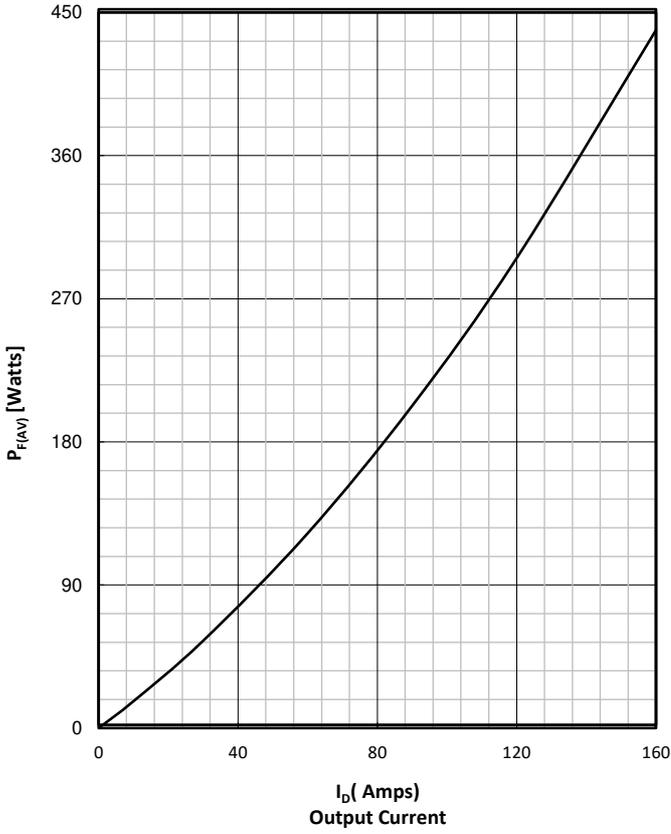
- Power Supplies
- Uncontrolled Rectifiers
- Field supply for DC motors

#### Key Parameters

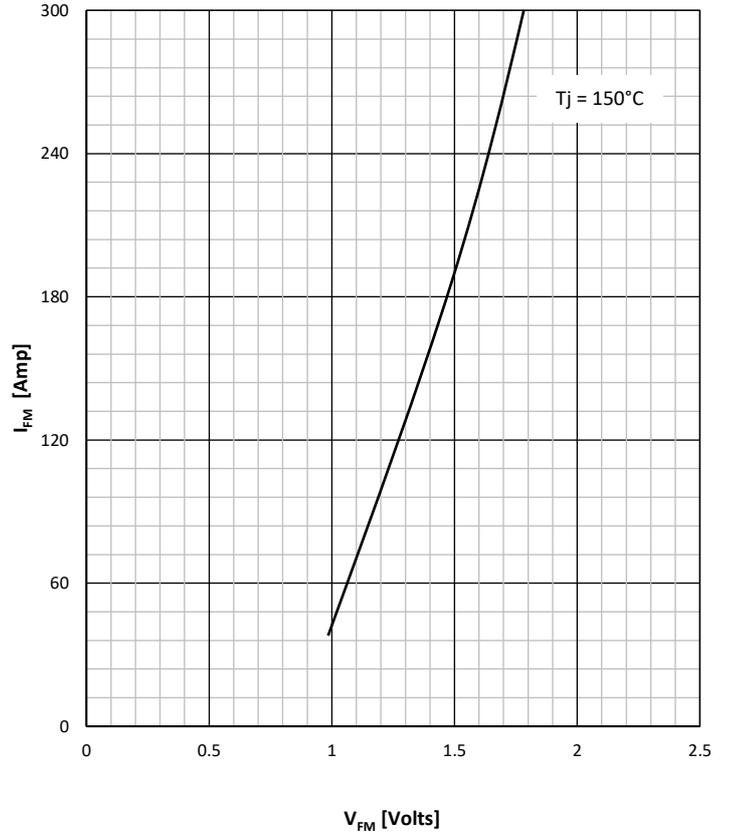
V<sub>RRM</sub>                    = 1600V  
I<sub>D(AV)</sub>                   = 200A  
I<sub>FSM</sub>                     = 1600A  
V<sub>F(TO)</sub>                 = 0.81V  
r<sub>F</sub>                         = 3.52mΩ

Symbol	Characteristic	Conditions	T <sub>j</sub> [°C]	Value	Unit
<b>BLOCKING</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		150	800 - 1600	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		150	900 - 1700	V
I <sub>RRM</sub>	Repetitive peak reverse current	V = V <sub>RRM</sub>	150	10	mA
<b>CONDUCTING</b>					
I <sub>D(AV)</sub>	DC output current	T <sub>c</sub> =85°C T <sub>c</sub> =60°C		160 200	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	1600	A
			150	1430	A
I <sup>2</sup> t	I <sup>2</sup> t	Sine wave, 10 ms Without reverse voltage	25	12800	A <sup>2</sup> s
			150	10224	A <sup>2</sup> s
V <sub>F</sub>	Forward voltage	On-state current = 200A	25	1.49	V
V <sub>F(TO)</sub>	Threshold voltage		150	0.81	V
r <sub>F</sub>	Forward slope resistance		150	3.52	mΩ
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance, DC	Junction to case, per arm per bridge		0.73 0.12	°C/W
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, per bridge		0.03	°C/W
T <sub>j</sub>	Max. junction temperature			150	°C
T <sub>stg</sub>	Storage temperature			-40 ... 150	°C
V <sub>ISOL</sub>	Insulation test voltage, RMS	F=50Hz, 1min		2.5	KV
M1	Mounting torque			6 ± 15%	Nm
M2	Terminal connection torque			4 ± 15%	Nm
W	Weight (Approx.)			210	gm

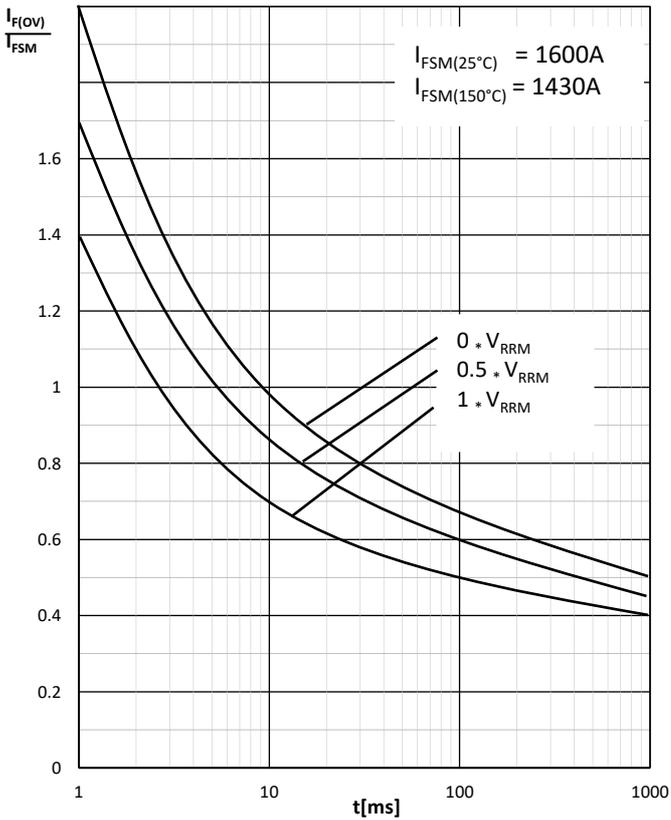
POWER DISSIPATION Vs OUTPUT CURRENT



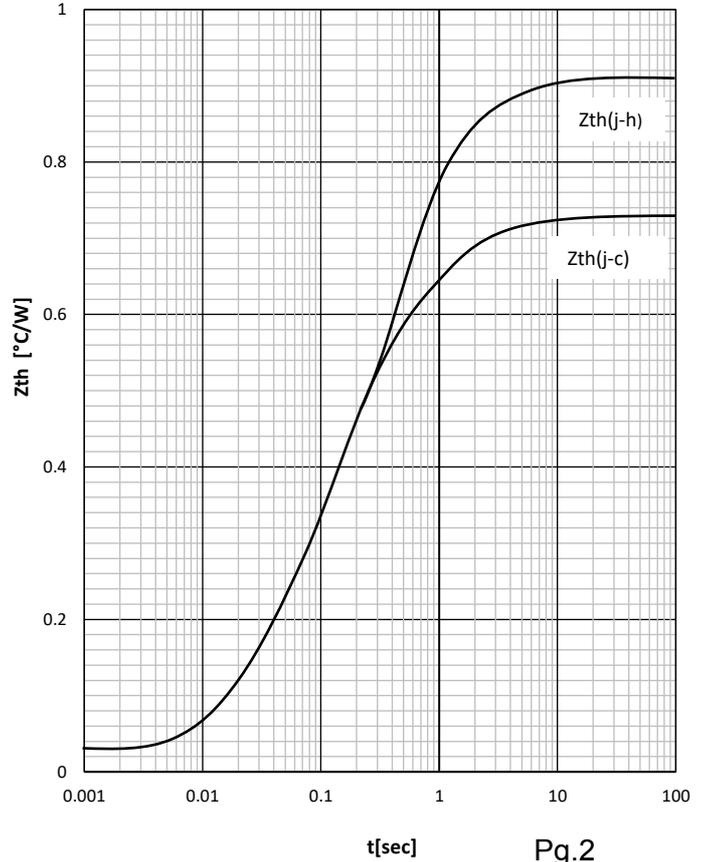
ON-STATE CHARACTERISTIC OF A DIODE ARM



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER ARM



**DIMENSIONS WITHOUT OPTIONAL BARRIERS** in millimeters (inches)

