

## Features

- Full blocking capability over wide temperature range
- Hermetic sealed ceramic package

## Key Parameters

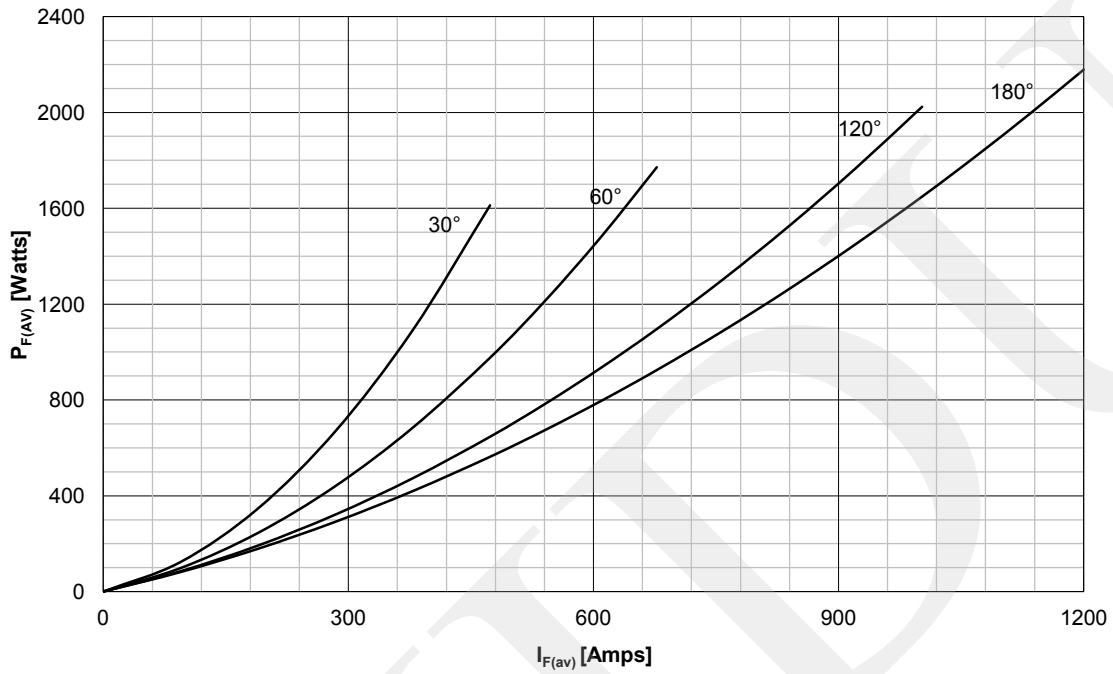
$V_{RRM}$	= 1800V
$I_{F(AV)}$	= 1200A
$I_{FSM}$	= 12kA
$V_{F(TO)}$	= 0.78V
$r_F$	= 0.35mΩ

## Applications

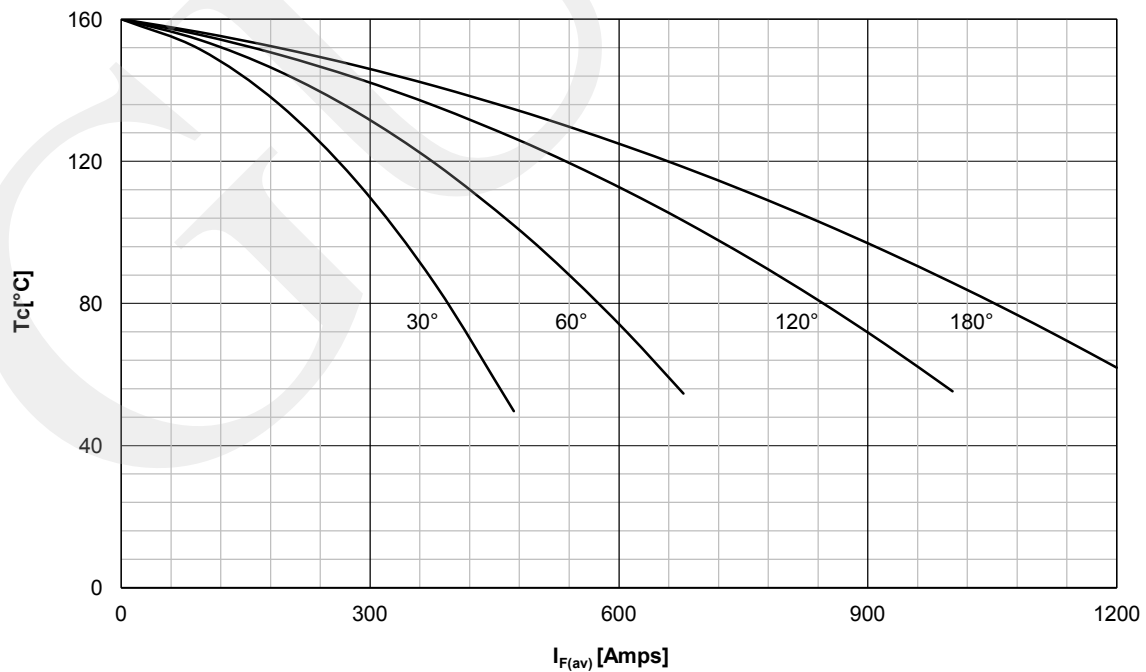
- Uncontrolled Rectifiers
- Battery Chargers
- Power Supplies

Symbol	Characteristic	Conditions	T <sub>J</sub> [°C]	Value	Unit
<b>BLOCKING</b>					
$V_{RRM}$	Repetitive peak reverse voltage		160	200 - 1800	V
$I_{RRM}$	Repetitive peak reverse current	$V = V_{RRM}$	160	30	mA
<b>CONDUCTING</b>					
$I_{F(AV)}$	Mean Forward current	180° sin ,50 Hz, T <sub>c</sub> =62°C, Double side cooled		1200	A
$I_{FRMS}$	RMS Forward current			1884	A
$I_{FSM}$	Surge Forward current	Sine wave, 10 ms Without reverse voltage	25	12000	A
			160	11000	A
$I^2 t$	$I^2 t$	Sine wave, 10 ms Without reverse voltage	25	$720 \times 10^3$	A <sup>2</sup> s
			160	$605 \times 10^3$	A <sup>2</sup> s
$V_F$	Peak Forward voltage	Peak forward current = 3000A	160	1.83	V
$V_{F(TO)}$	Threshold voltage		160	0.78	V
$r_F$	Forward slope resistance		160	0.35	mΩ
<b>MOUNTING</b>					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, Double side cooled		0.045	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, Double side cooled		0.015	°C/W
$T_j$	Max. junction temperature			160	°C
$T_{stg}$	Storage temperature			-40 .... 160	°C
M	Mounting Torque			8	kN
W	Weight (Approx.)			90	gm

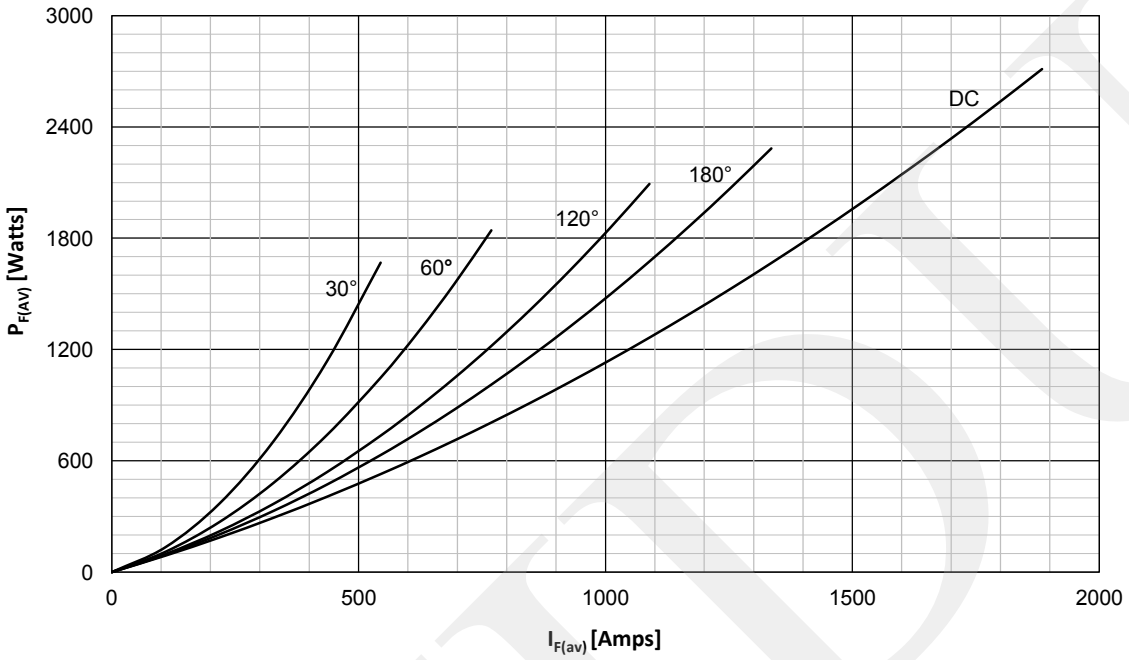
DISSIPATION CHARACTERISTICS  
SINE WAVE



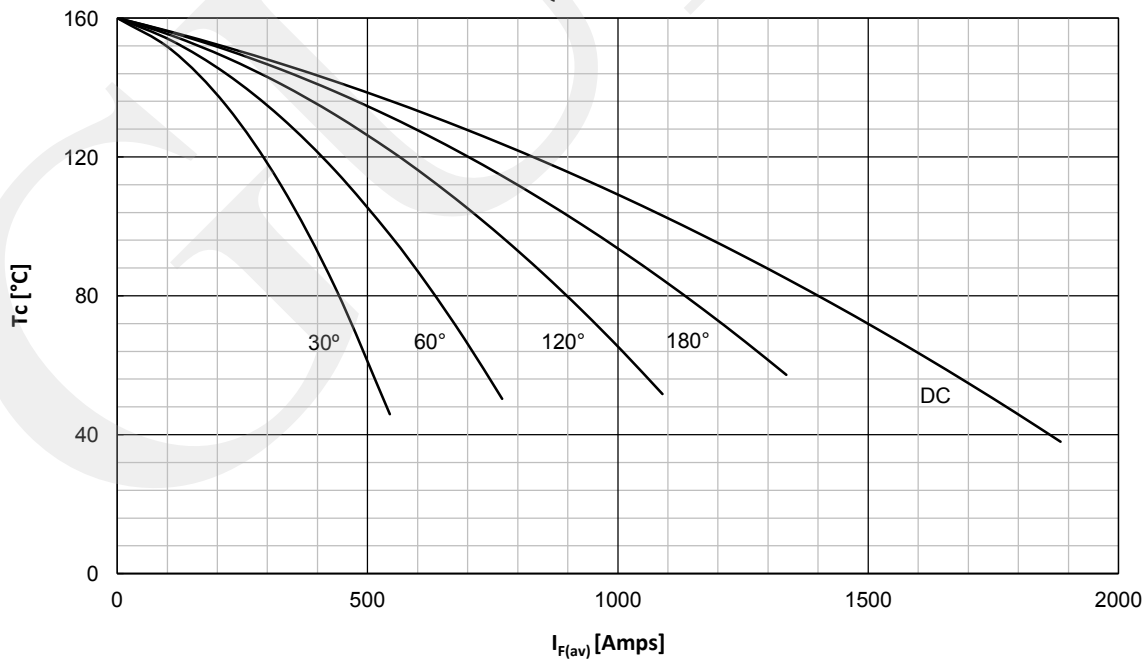
FORWARD CURRENT DERATING CURVE  
SINE WAVE



DISSIPATION CHARACTERISTICS  
SQUARE WAVE

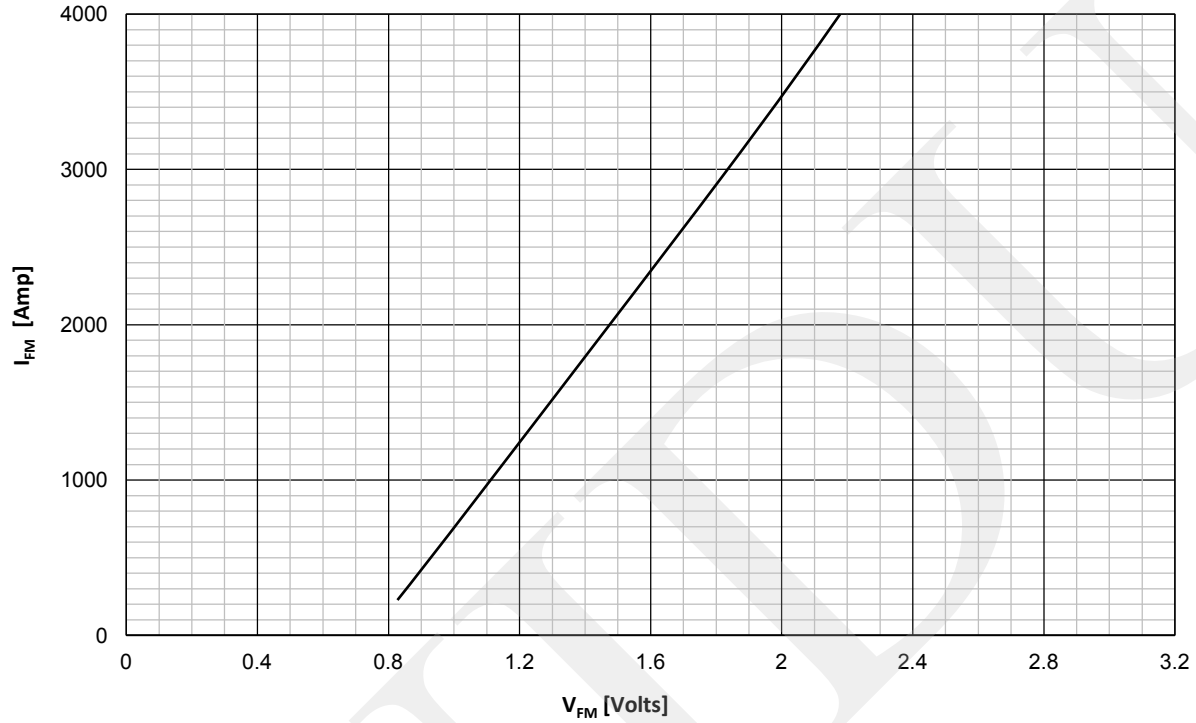


FORWARD CURRENT DERATING CURVE  
SQUARE WAVE

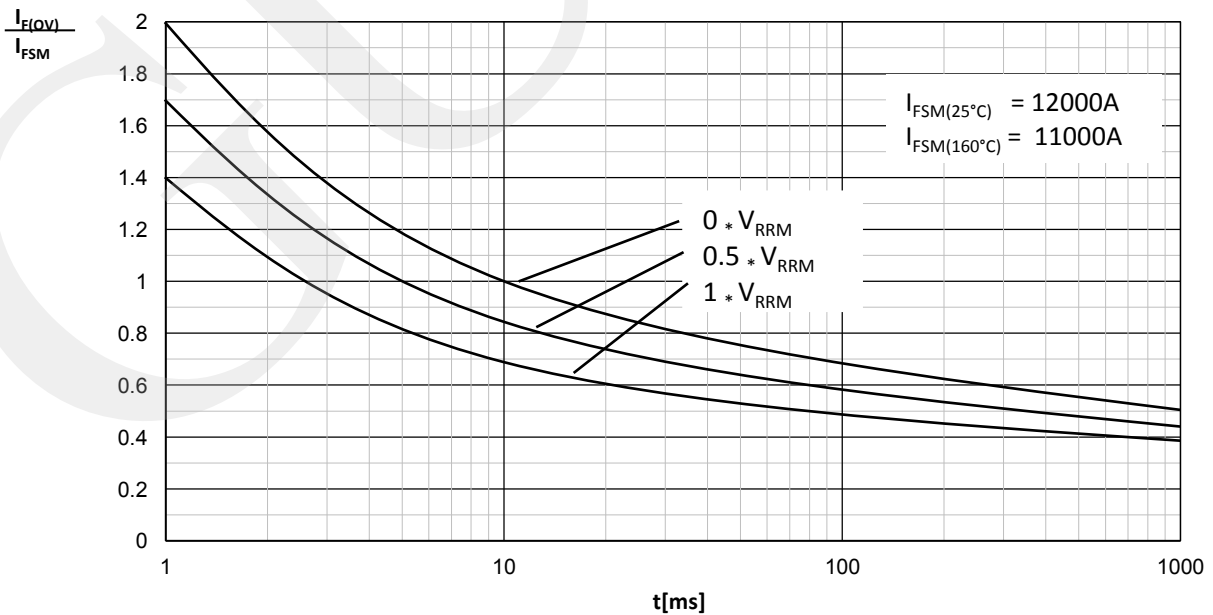


FORWARD CHARACTERISTICS

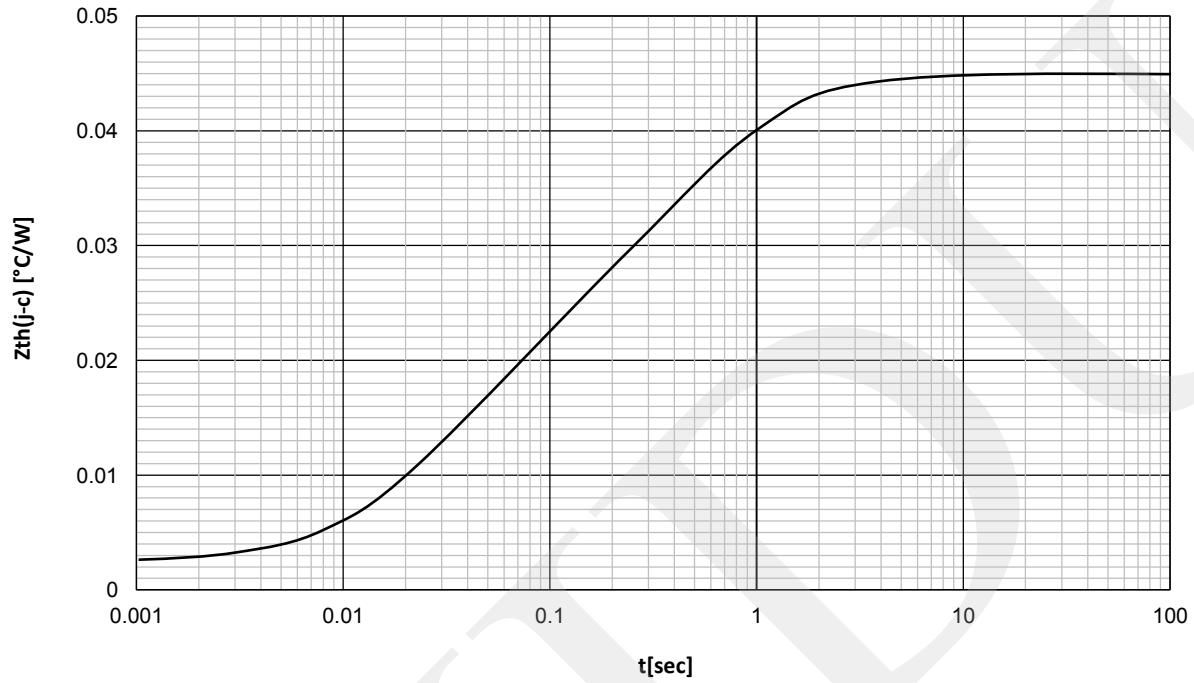
$T_j = 160^\circ\text{C}$



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, DSC



**ORDERING INFORMATION**

<b>GDZP</b>	<b>1200</b>	<b>C</b>	<b>X X</b>
Rectifier Diode	Current code	Capsule Package	Voltage Code Code X 100 = $V_{RRM}$

Order Code GDZP1200C18 – 1800V  $V_{RRM}$ , Capsule diode

Outline

