

Features

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

Key Parameters

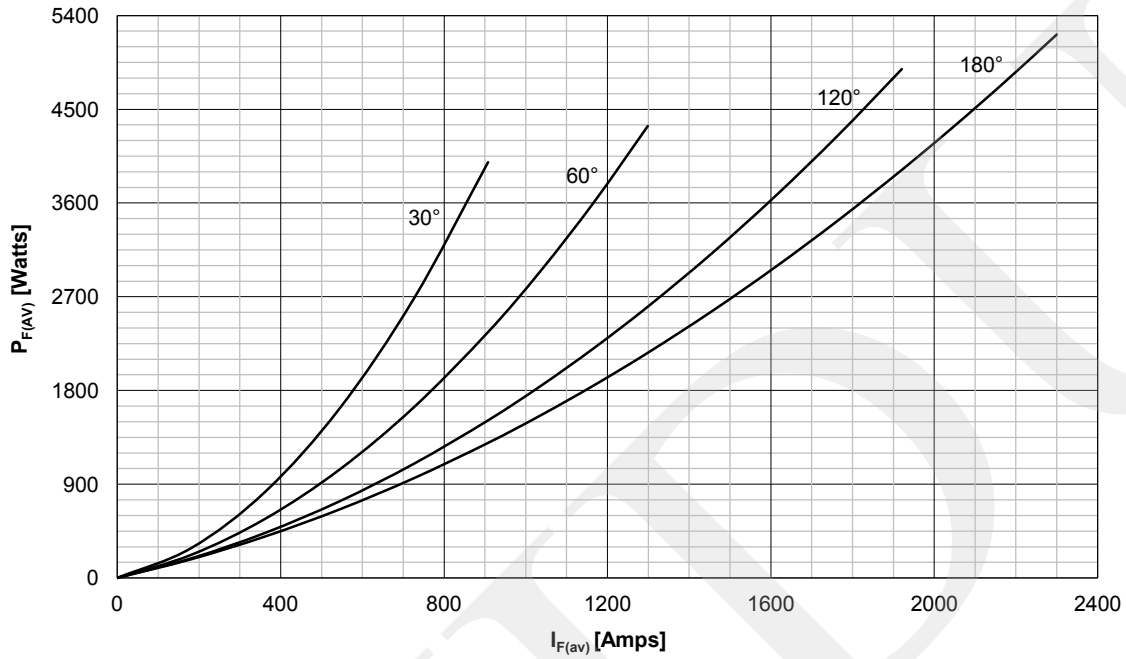
V_{RRM}	= 4400V
$I_{F(AV)}$	= 2300A
I_{FSM}	= 26.8kA
$V_{F(TO)}$	= 0.88V
r_F	= 0.245mΩ

Applications

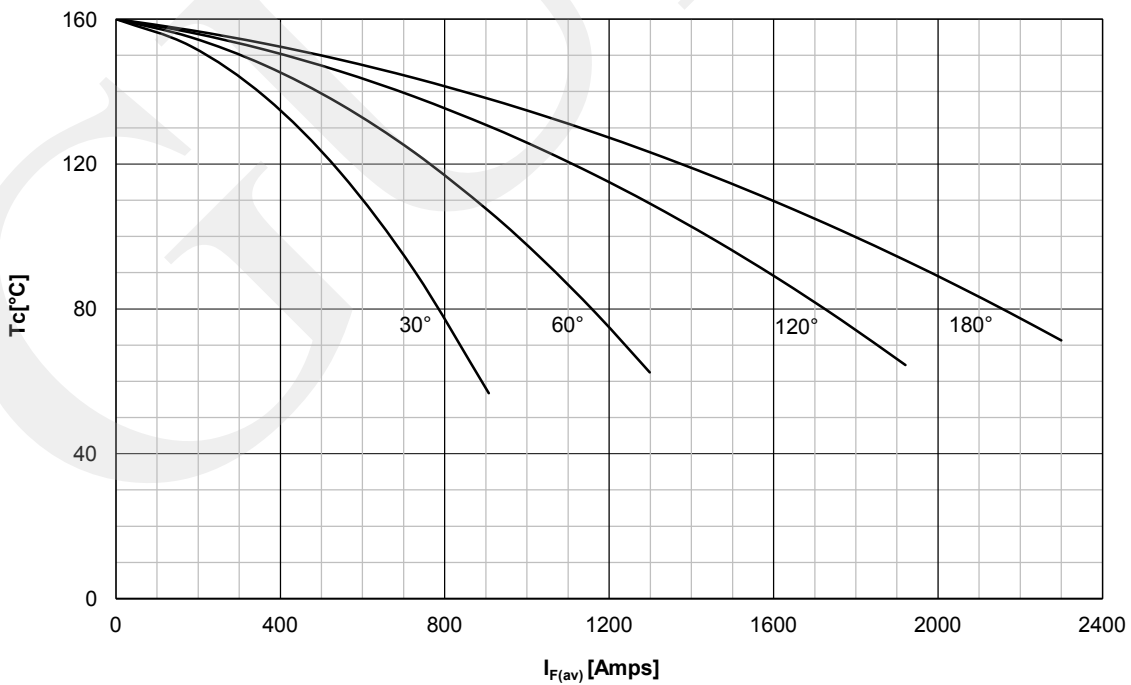
- Uncontrolled Rectifiers
- Battery Chargers
- Power Supplies

Symbol	Characteristic	Conditions	T _J [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		160	3000 - 4400	V
I_{RRM}	Repetitive peak reverse current	$V = V_{RRM}$	160	100	mA
CONDUCTING					
$I_{F(AV)}$	Mean Forward current	180° sin ,50 Hz, T _c =71°C, Double side cooled		2300	A
I_{FRMS}	RMS Forward current			3611	A
I_{FSM}	Surge Forward current	Sine wave, 10 ms Without reverse voltage	25	26800	A
			160	26000	A
$I^2 t$	$I^2 t$	Sine wave, 10 ms Without reverse voltage	25	3591×10^3	A ² s
			160	3380×10^3	A ² s
V_F	Peak Forward voltage	Peak forward current = 3000A	160	1.70	V
$V_{F(TO)}$	Threshold voltage		160	0.88	V
r_F	Forward slope resistance		160	0.245	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, Double side cooled		0.017	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, Double side cooled		0.0025	°C/W
T_j	Max. junction temperature			160	°C
T_{stg}	Storage temperature			-40 ... 160	°C
M	Mounting Torque			30 - 45	kN
W	Weight (Approx.)			600	gm

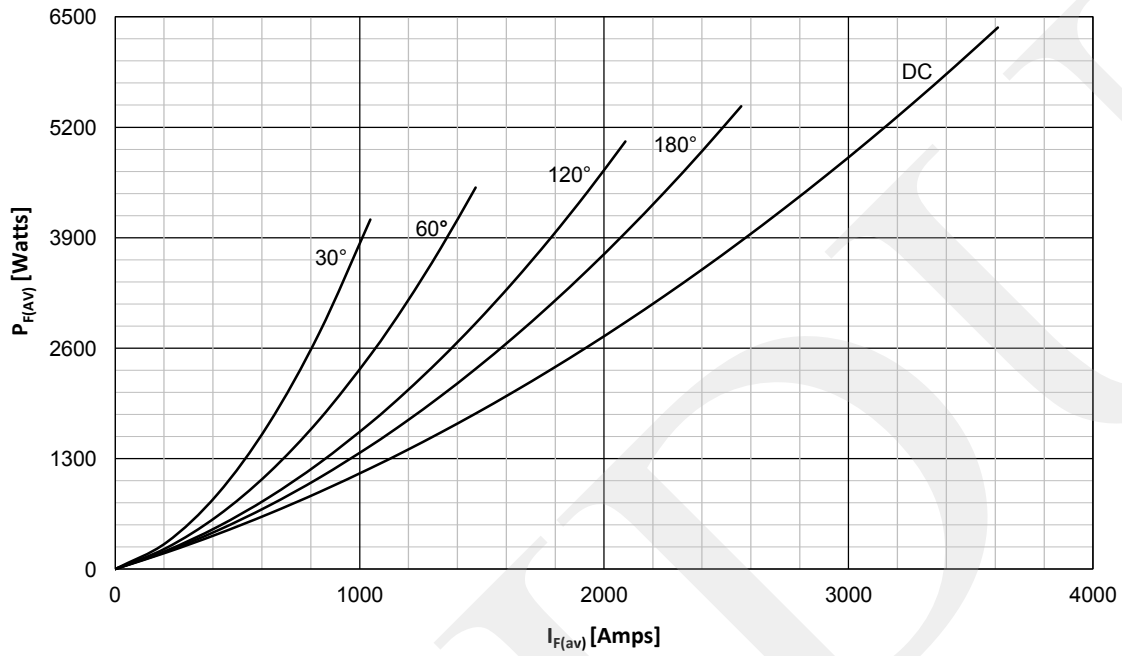
DISSIPATION CHARACTERISTICS
SINE WAVE



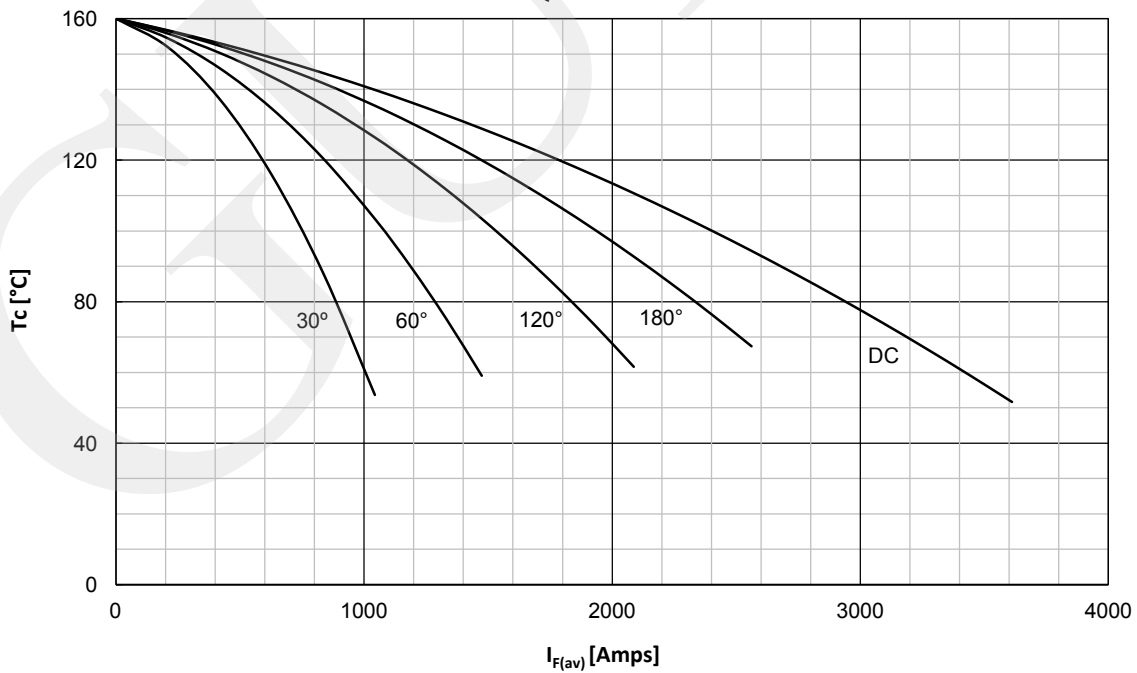
FORWARD CURRENT DERATING CURVE
SINE WAVE



DISSIPATION CHARACTERISTICS
SQUARE WAVE

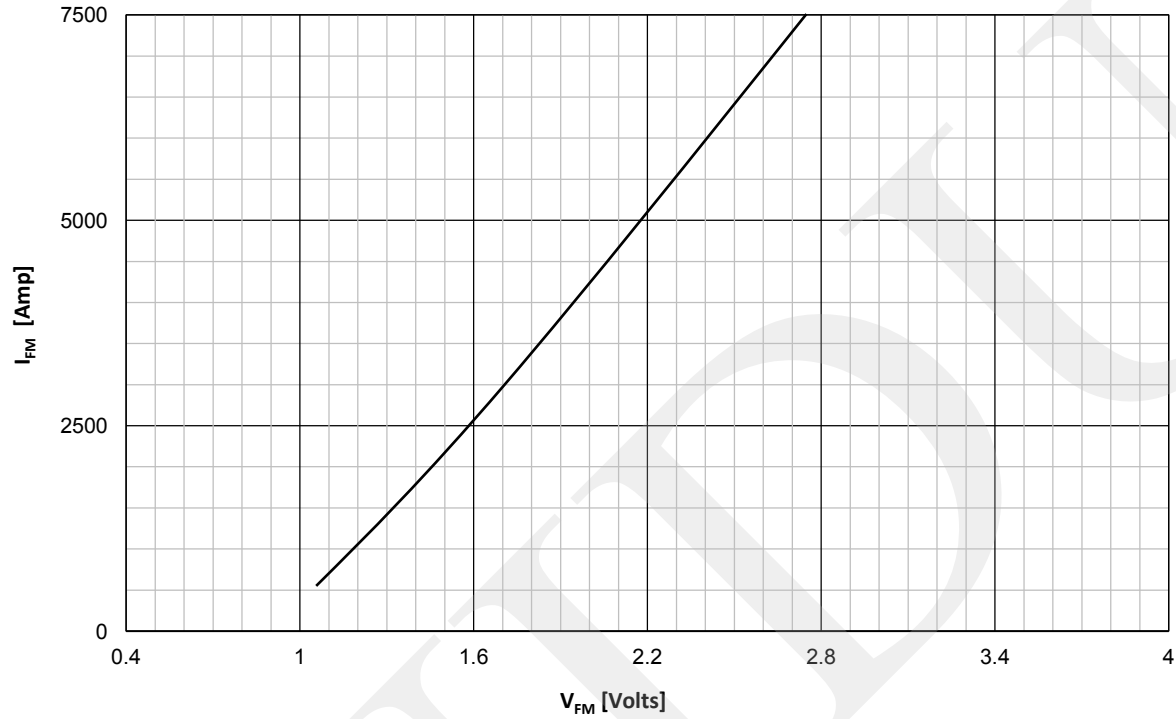


FORWARD CURRENT DERATING CURVE
SQUARE WAVE

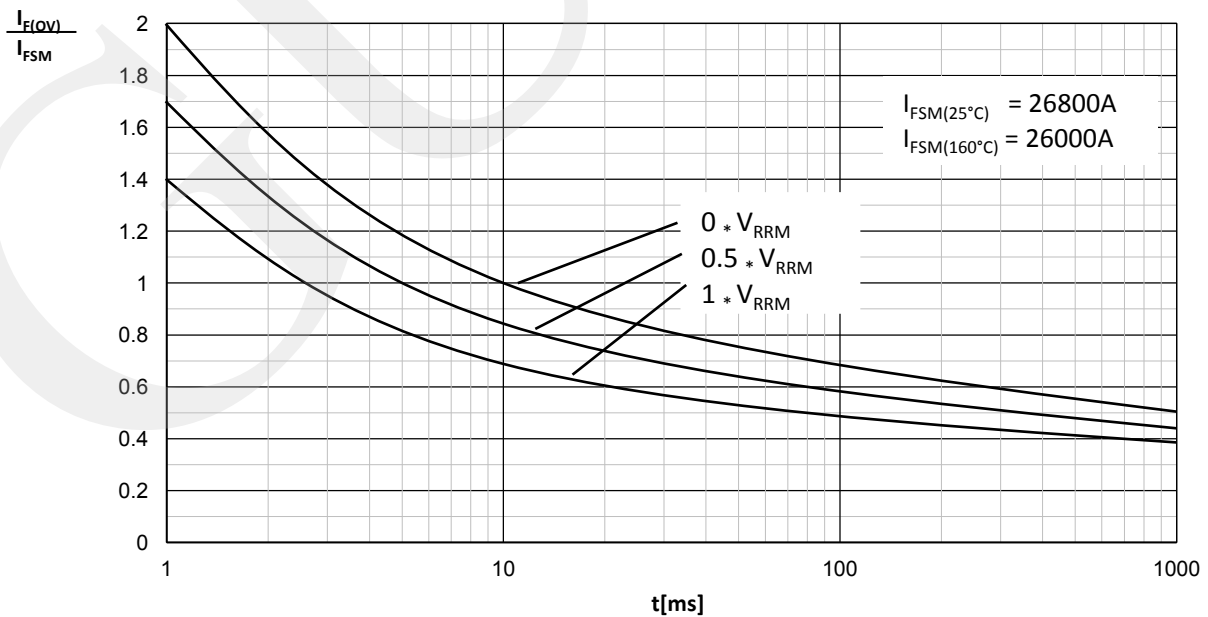


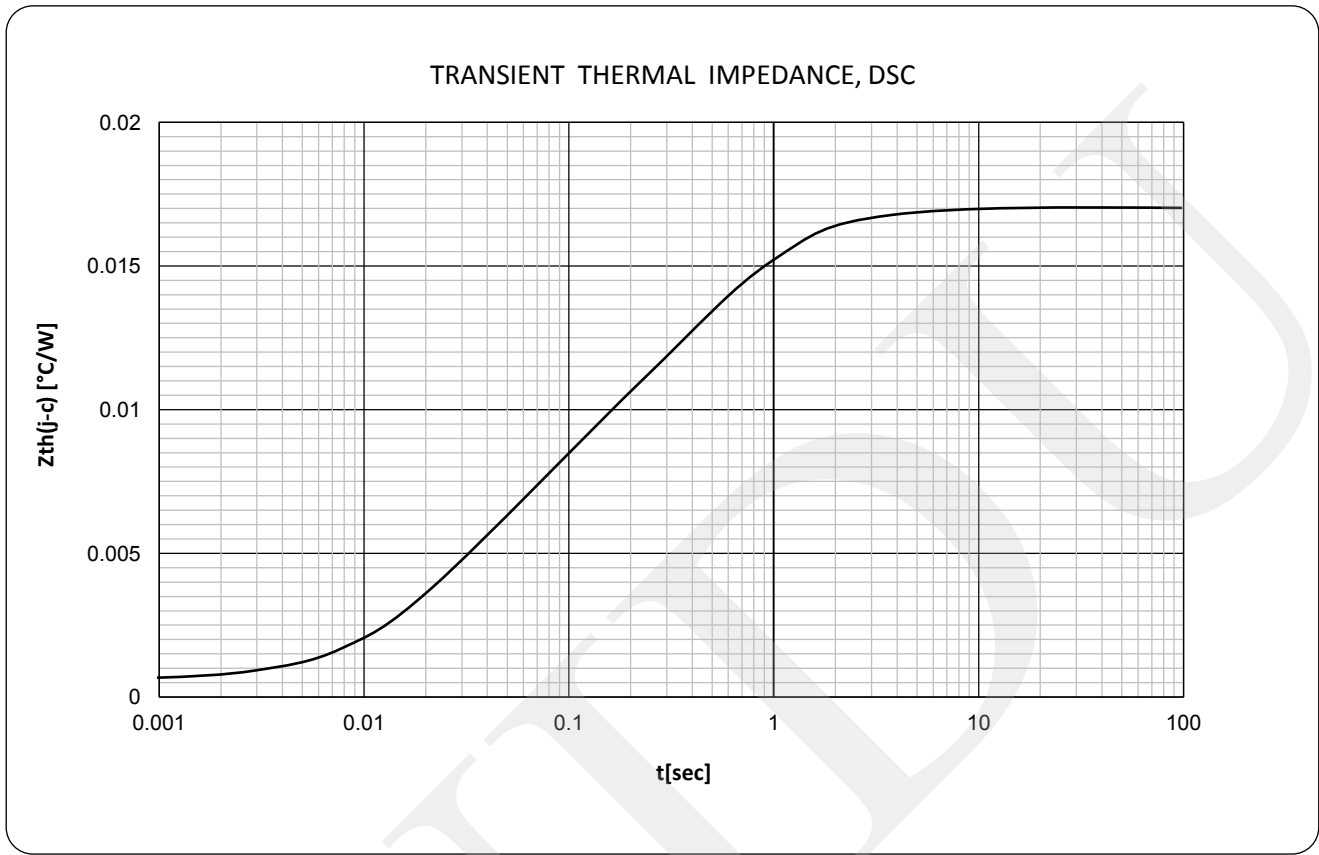
FORWARD CHARACTERISTICS

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



SURGE CHARACTERISTICS





ORDERING INFORMATION

GDZP	2300	C	X X
Rectifier Diode	Current code	Capsule Package	Voltage Code Code X 100 = V_{RRM}

Order Code GDZP2300C44 – 4400V V_{RRM} , Capsule diode

Outline

