

Features

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

Key Parameters

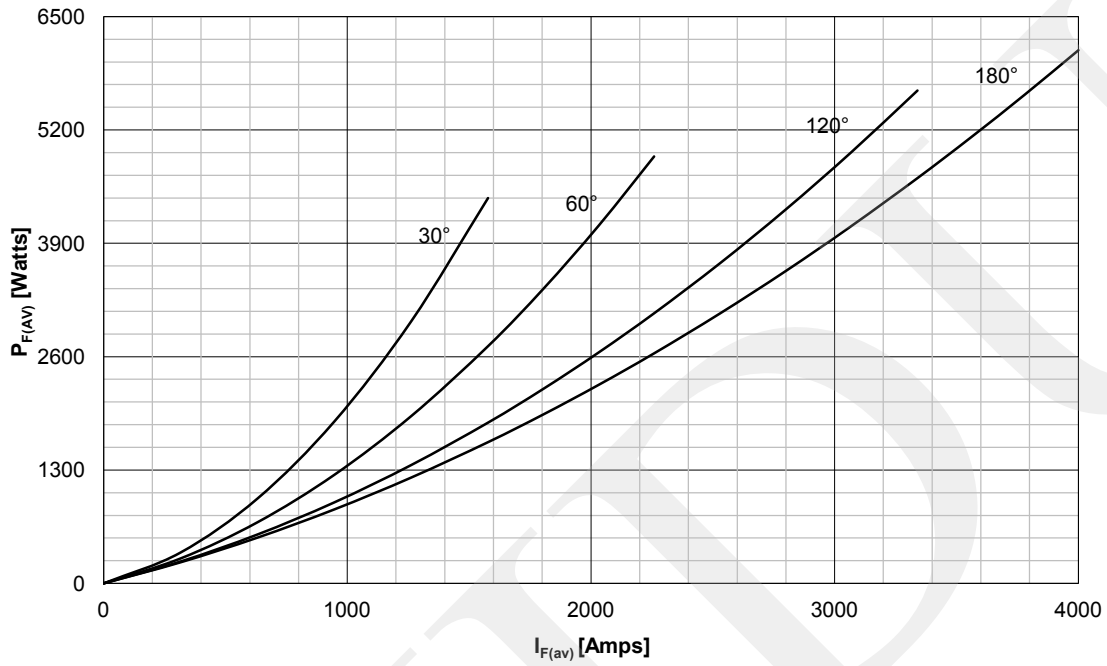
V_{RRM}	= 400V
$I_{F(AV)}$	= 4000A
I_{FSM}	= 34kA
$V_{F(TO)}$	= 0.70V
r_F	= 0.084mΩ

Applications

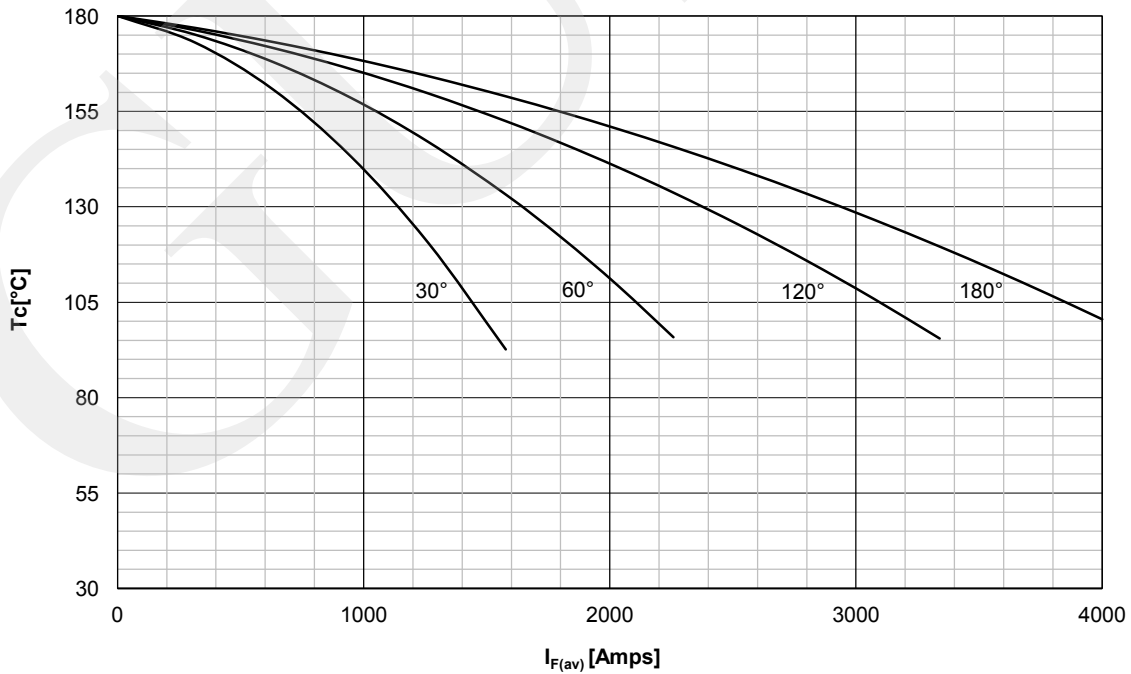
- Welding Rectifiers
- Uncontrolled Rectifiers

Symbol	Characteristic	Conditions	T _J [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		180	200 - 400	V
I_{RRM}	Repetitive peak reverse current	$V = V_{RRM}$	180	80	mA
CONDUCTING					
$I_{F(AV)}$	Mean Forward current	180° sin ,50 Hz, T _c =100°C, Double side cooled		4000	A
I_{FRMS}	RMS Forward current			6280	A
I_{FSM}	Surge Forward current	Sine wave, 10 ms Without reverse voltage	25	34000	A
			180	32000	A
$I^2 t$	$I^2 t$	Sine wave, 10 ms Without reverse voltage	25	5780×10^3	A ² s
			180	5120×10^3	A ² s
V_F	Peak Forward voltage	Peak forward current = 4500A	180	1.12	V
$V_{F(TO)}$	Threshold voltage		180	0.70	V
r_F	Forward slope resistance		180	0.084	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, Double side cooled		0.0130	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, Double side cooled		0.005	°C/W
T_j	Max. junction temperature			180	°C
T_{stg}	Storage temperature			-40 ... 180	°C
M	Mounting Torque			26 - 30	NM
W	Weight (Approx.)			130	gm

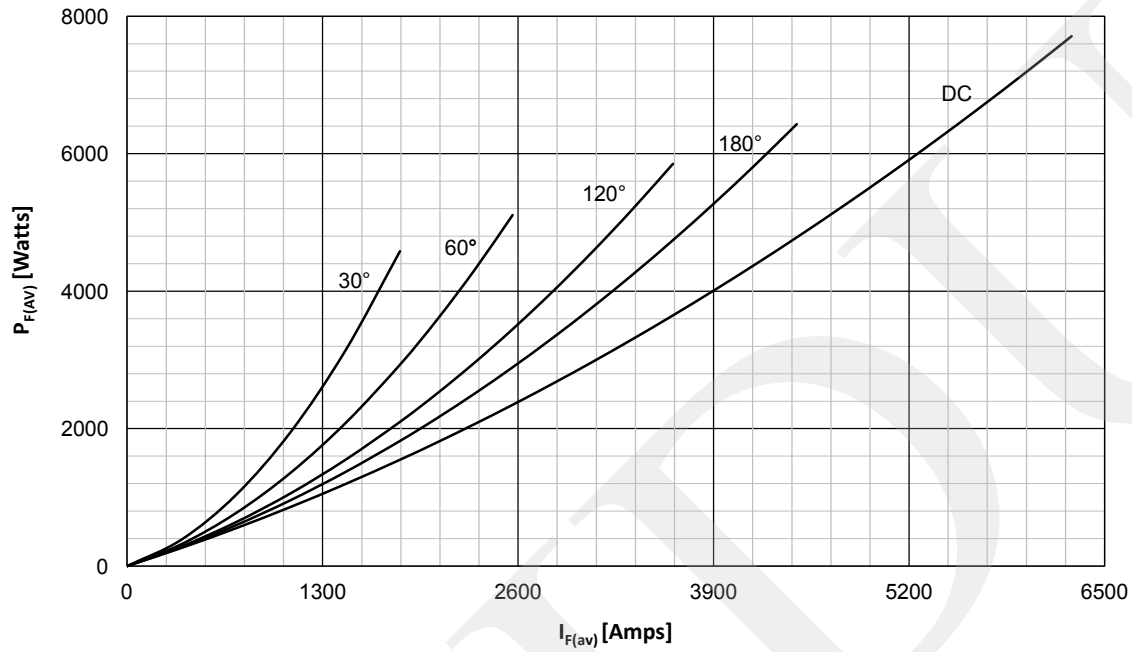
DISSIPATION CHARACTERISTICS
SINE WAVE



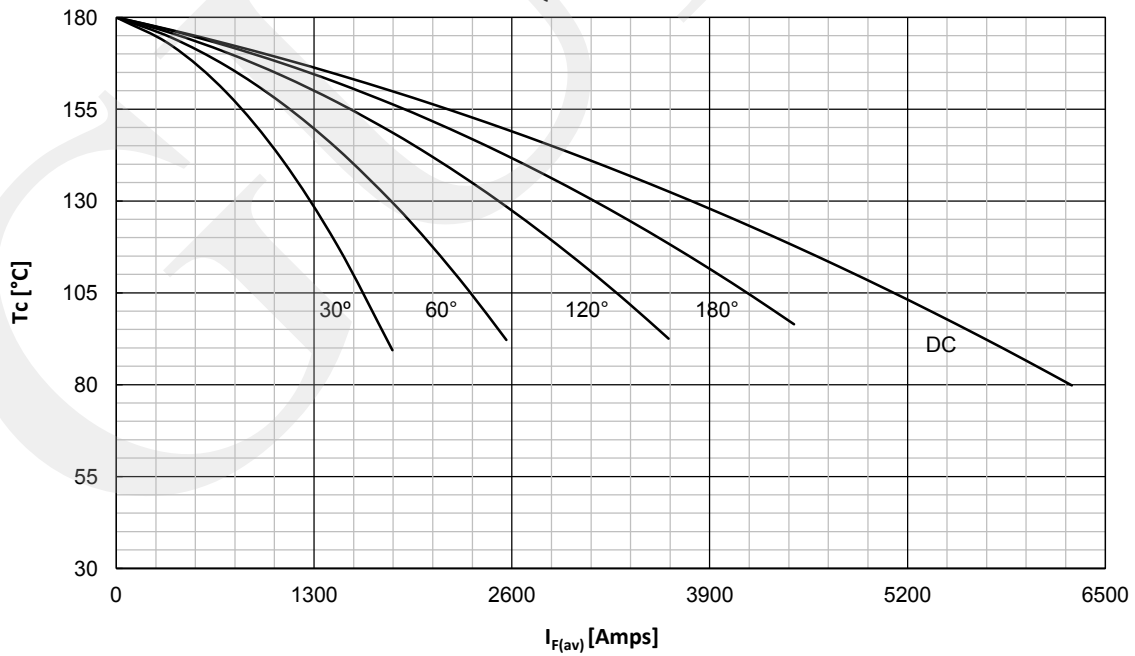
FORWARD CURRENT DERATING CURVE
SINE WAVE



DISSIPATION CHARACTERISTICS
SQUARE WAVE

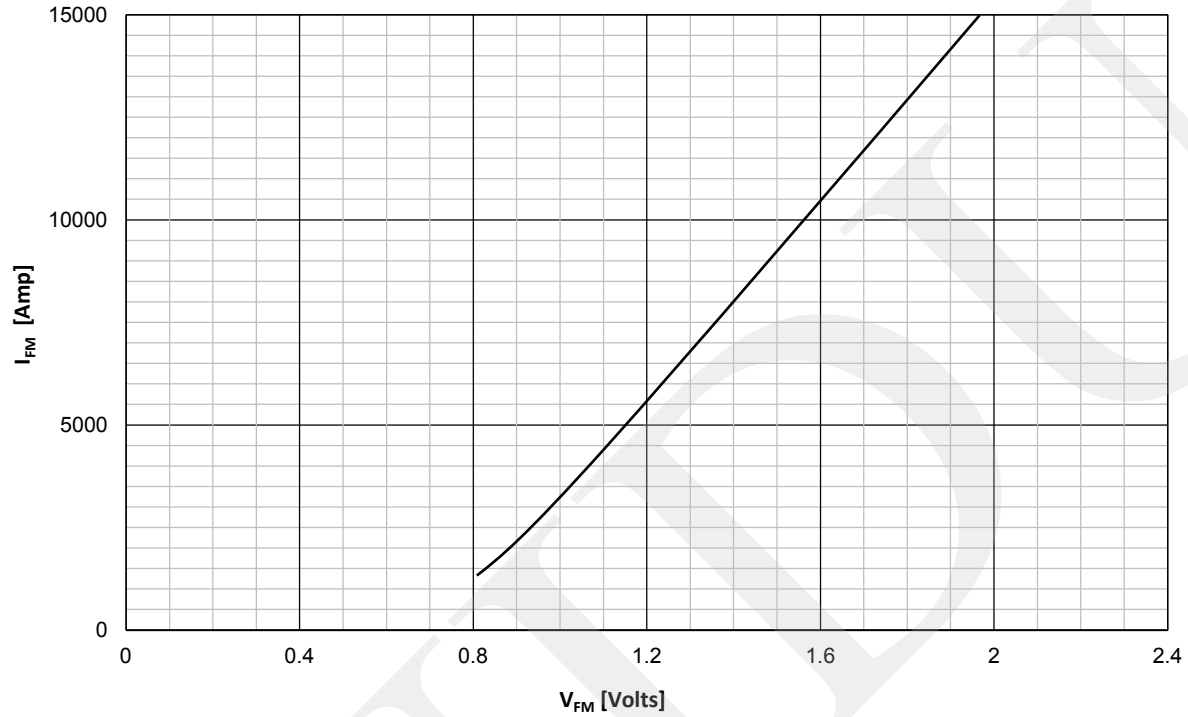


FORWARD CURRENT DERATING CURVE
SQUARE WAVE

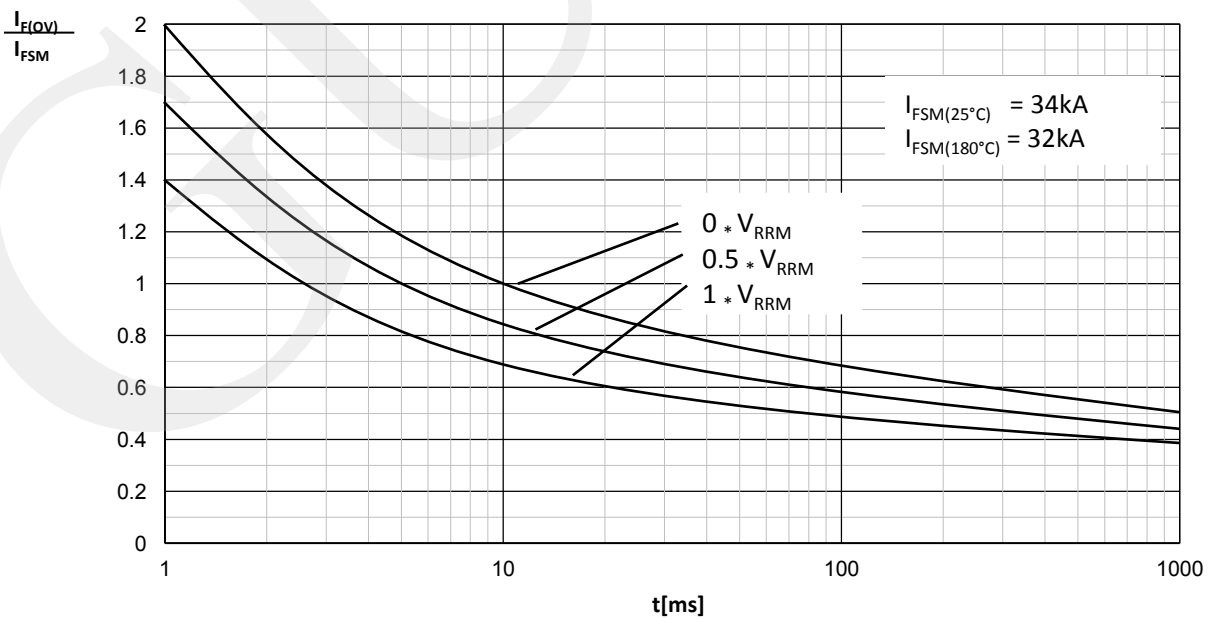


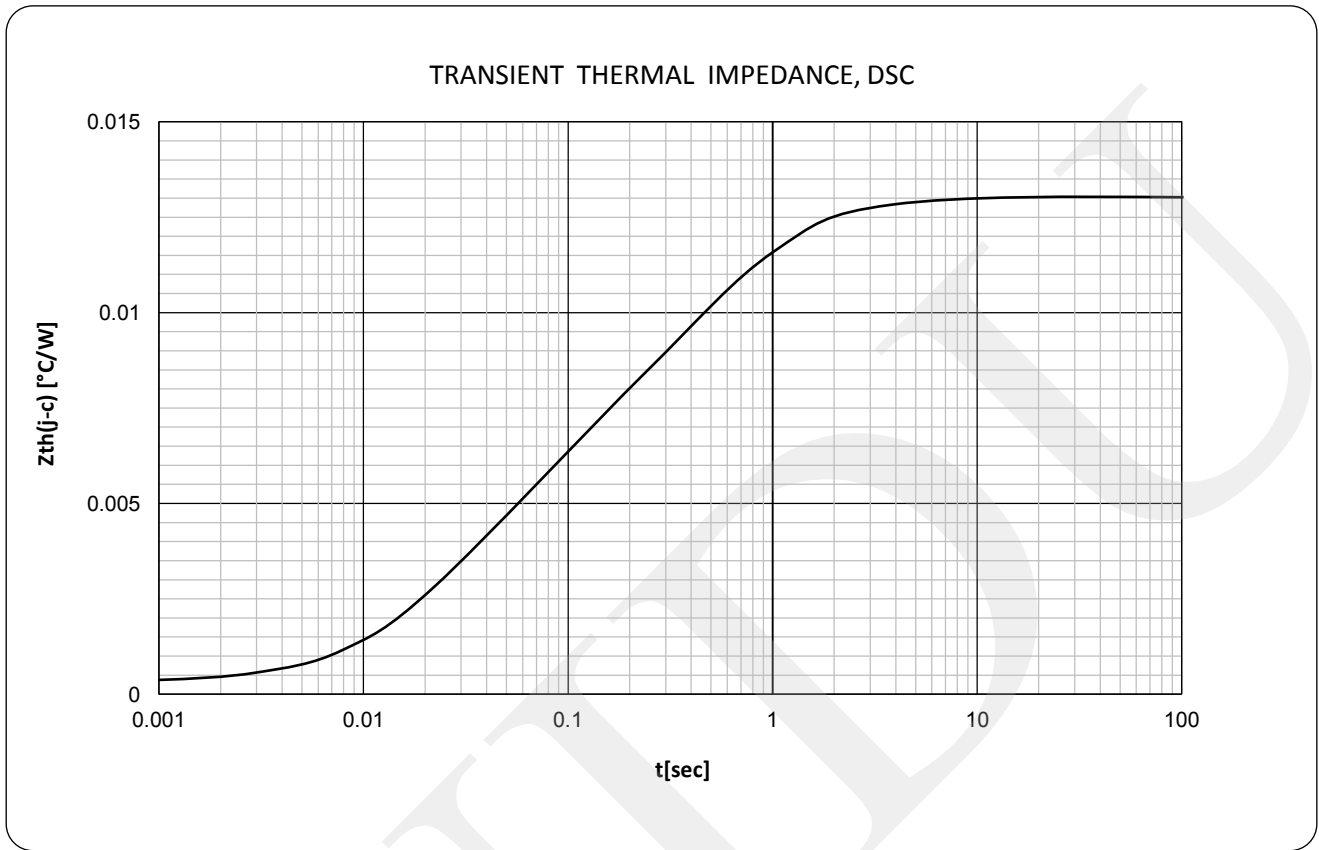
FORWARD CHARACTERISTICS

$T_j = 180^\circ\text{C}$



SURGE CHARACTERISTICS





ORDERING INFORMATION

GDZM	4000	C	X X
Welding Diode	Current code	Capsule Package	Voltage Code Code X 100 = V_{RRM}

Order Code GDZM4000C04 – 400V V_{RRM} , Welding diode

Outline

