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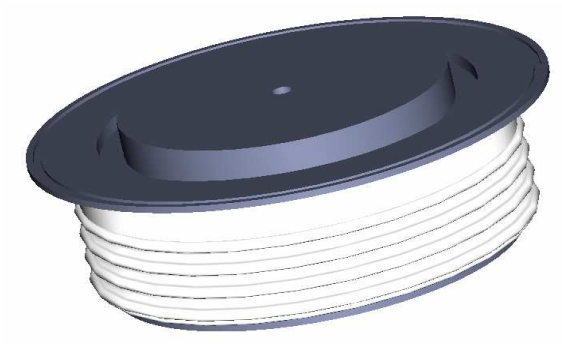


GPDP2350

RECTIFIER E DIODE

VOLTAGE UP TO	**1800**	**V**
AVERAGE CURRENT	**3500**	**A**
SURGE CURRENT	**35**	**kA**

BLOCKING CHARACTERISTICS

Characteristic		Conditions	Value
V_{RRM}	Repetitive peak reverse voltage		1800 V
V_{RSM}	Non-repetitive peak reverse voltage		1900 V
I_{RRM}	Repetitive peak reverse current, max.	V_{RRM}, single phase, half wave, Tjmax	75 mA

FORWARD CHARACTERISTICS

$I_{F(AV)}$	Average forward current	Sine wave,180° conduction, T h = 55°C	3500 A
$I_{F(AV)}$	Average forward current	Sine wave,180° conduction, T c = 85°C	2975 A
I_{FSM}	Surge forward current	Non rep. half sine wave, 50 Hz, V_R = 0 V, $T_j = T_{jmax}$	35 kA
I^2t	I^2 t for fusing coordination		6125 kA^2s
$V_{F(TO)}$	Threshold voltage	$T_j = T_{jmax}$	0.79 V
r_F	Forward slope resistance	$T_j = T_{jmax}$	0.09 mΩ
V_{FM}	Peak forward voltage, max	Forward current I_F = 4000 A, Tj = 25°C	1.20 V

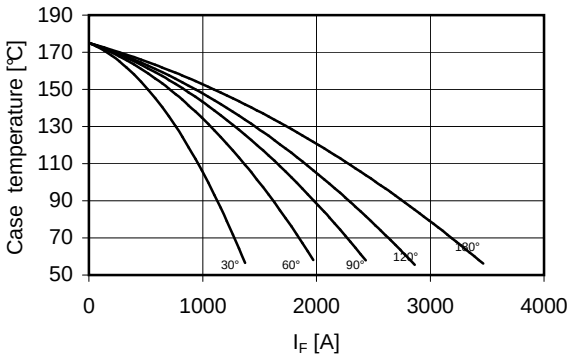
SWITCHING CHARACTERISTICS

Q_{rr}	Rverse recovery charge, typ	$T_j = T_{jmax}$, I_F = 2000 A, di/dt = -5 A/µs	µC
I_{rr}	Reverse recovery current	V_R = 100 V	A
t_{rr}	Reverse recovery time		µs
V_{FP}	Forward recovery voltage	$T_j = T_{jmax}$, di/dt = A/µs	V

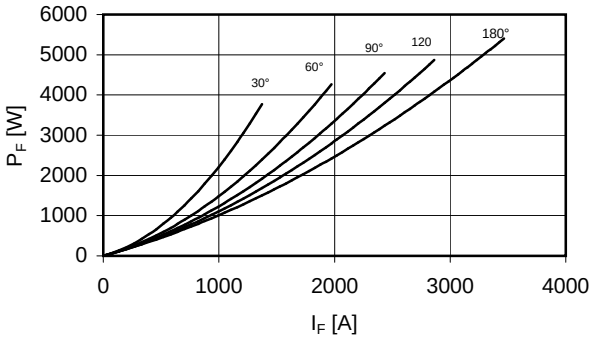
THERMAL AND MECHANICAL CHARACTERISTICS

$R_{th(j-c)}$	Thermal resistance (junction to case)	Double side cooled	0.020 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Double side cooled	0.002 °C/W
T_{jmax}	Max operating junction temperature		175 °C
T_{stg}	Storage temperature		-40 / 175 °C
F	Clamping force ± 10%		22 kN
	Mass		500 g

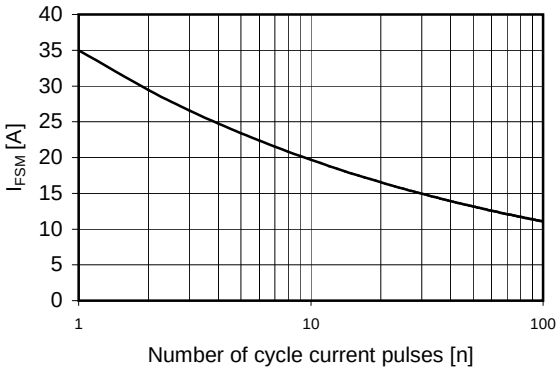
Current rating - sine wave



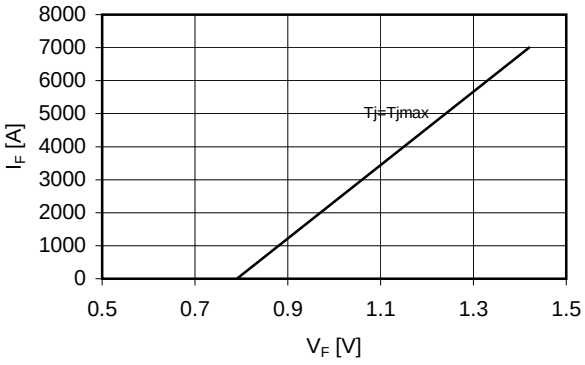
Power loss - sine wave



Maximum surge current
d.s. cooled



Forward voltage drop



Thermal Impedance (j-c)