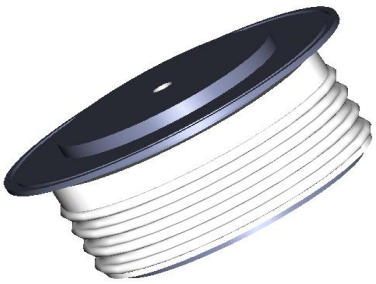
Green Power Solutions Srl
Web: www.gpsemi.it e-mail: info@gpsemi.it
Phone: +39-011-988 2251
Fax: +39-011-988 1358
http://gpsemi.it/pdf/GPDN9071.pdf

GPDN9071

RECTIFIER DIODE



VOLTAGE UP TO	**9000**	**V**
AVERAGE CURRENT	**710**	**A**
SURGE CURRENT	**10**	**kA**

BLOCKING CHARACTERISTICS

Characteristic		Conditions	Value	
V_{RRM}	Repetitive peak reverse voltage		9000	V
V_{RSM}	Non-repetitive peak reverse voltage		9100	V
I_{RRM}	Repetitive peak reverse current, max.	V_{RRM}, single phase, half wave, Tjmax	100	mA

FORWARD CHARACTERISTICS

$I_{F(AV)}$	Average forward current	Sine wave,180° conduction, Th = 55°C	710	A
$I_{F(RMS)}$	R.M.S. forward current	Sine wave,180° conduction, Th = 55°C	1115	A
I_{FSM}	Surge forward current	Non rep. half sine wave, 50 Hz, V_R = 0 V, $T_j = T_{jmax}$	10	kA
I^2t	I^2 t for fusing coordination		500	kA^2s
$V_{F(TO)}$	Threshold voltage	$T_j = T_{jmax}$	1.0	V
r_F	Forward slope resistance	$T_j = T_{jmax}$	1.58	mΩ
V_{FM}	Peak forward voltage, max	Forward current I_F = 1000 A, Tj = Tjmax	2.58	V

SWITCHING CHARACTERISTICS

Q_{rr}	Rverse recovery charge, typ	I_F = 2000 A, di/dt = -5 A/µs	3500	µC
I_{rr}	Reverse recovery current	V_R = 0 V, $T_j = T_{jmax}$	100	A

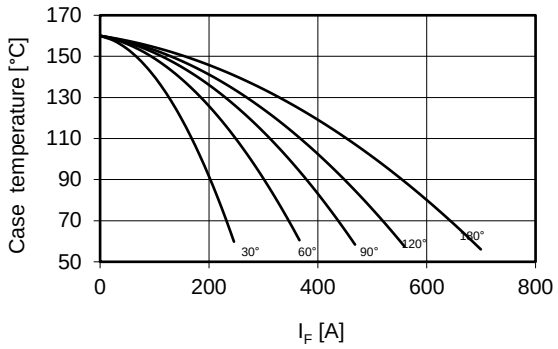
THERMAL AND MECHANICAL CHARACTERISTICS

$R_{th(j-c)}$	Thermal resistance (junction to case)	Double side cooled	0.032	°C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Double side cooled	0.008	°C/W
T_{jmax}	Max operating junction temperature		160	°C
T_{stg}	Storage temperature		-40 / 160	°C
F	Clamping force ± 5%		12	kN
	Mass		300	g

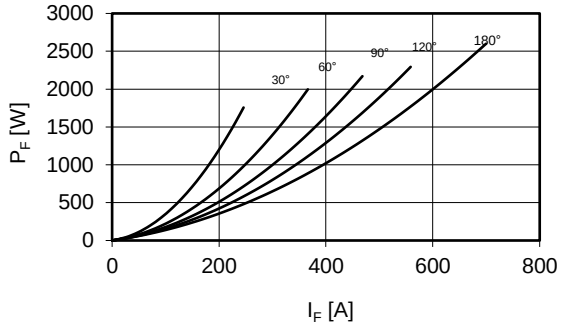
Green Power Solutions

RECTIFIER DIODE GPDN9071

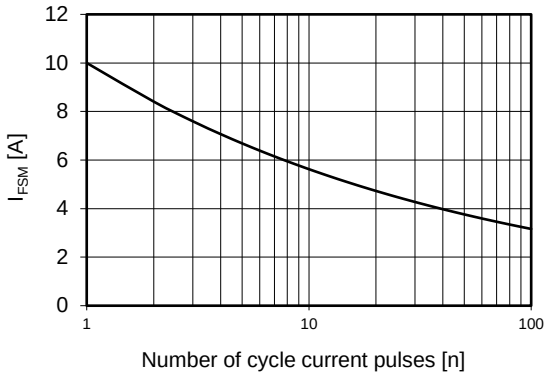
Current rating - sine wave



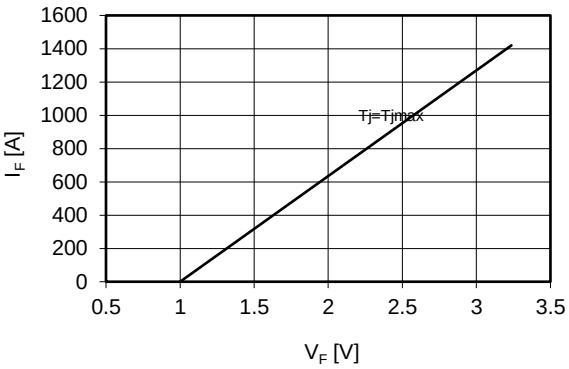
Power loss - sine wave



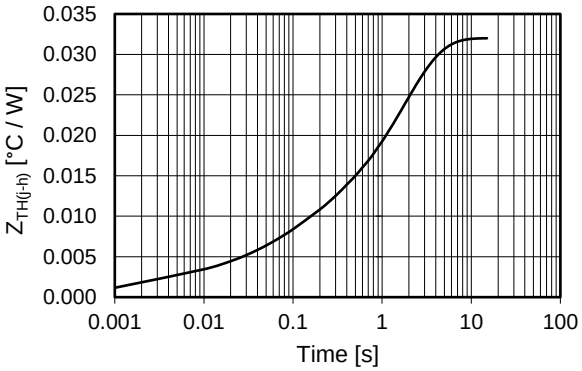
Maximum surge current d.s. cooled

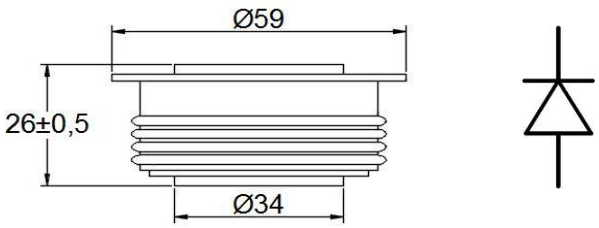


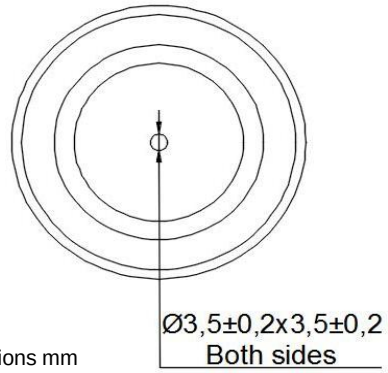
Forward voltage drop



Thermal Impedance (j-c)







dimensions mm

Ordering information GPDN9071-VV

VV: blocking voltage / 100 (e.g. 90 for 9000V)