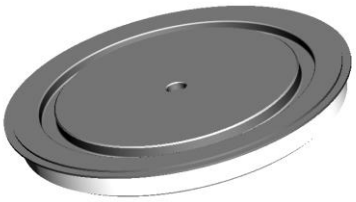
Green Power Solutions Srl
Web: www.gpsemi.it e-mail: info@gpsemi.it
Phone: +39-011-988 2251
Fax: +39-011-988 1358
http://gpsemi.it/pdf/GPDC0799.pdf

GPDC0799



RECTIFIER DIODE

Low profile ceramic package
Spot welding applications
Electroplating applications

VOLTAGE UP TO	**400**	**V**
AVERAGE CURRENT	**7990**	**A**
SURGE CURRENT	**55**	**kA**

BLOCKING CHARACTERISTICS

Characteristic		Conditions	Value	
V_{RRM}	Repetitive peak reverse voltage		(*) 400	V
V_{RSM}	Non-repetitive peak reverse voltage		500	V
I_{RRM}	Repetitive peak reverse current, max.	V_{RRM}, single phase, half wave, Tj = Tjmax	50	mA

FORWARD CHARACTERISTICS

$I_{F(AV)}$	Average forward current	Sine wave,180° conduction, Tc = 70°C	7990	A
$I_{F(RMS)}$	R.M.S. forward current	Sine wave,180° conduction, Tc = 70°C	12551	A
I_{FSM}	Surge forward current	Non rep. half sine wave, 50 Hz, V_R = 0 V, $T_j = T_{jmax}$	55	kA
I^2t	I^2 t for fusing coordination		15125	kA^2s
$V_{F(TO)}$	Threshold voltage	$T_j = T_{jmax}$	0.74	V
r_F	Forward slope resistance	$T_j = T_{jmax}$	0.026	mΩ
V_{FM}	Peak forward voltage, max	Forward current I_F = 5000 A, Tj = 25°C	1.05	V

SWITCHING CHARACTERISTICS

Q_{rr}	Rverse recovery charge, typ	$T_j = T_{jmax}$, I_F = 1000 A, di/dt = -30 A/µs	500	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

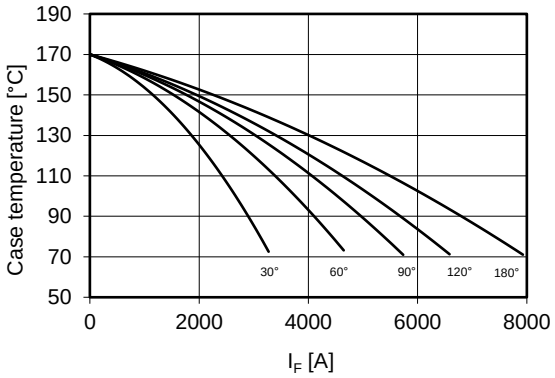
$R_{th(j-c)}$	Thermal resistance (junction to case)	Double side cooled	0.010	°C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Double side cooled	0.005	°C/W
T_{jmax}	Max operating junction temperature		170	°C
T_{stg}	Storage temperature		-40 / 170	°C
F	Clamping force ± 10%		22	kN
	Mass		150	g

(*) higher blocking voltage available upon request: contact factory

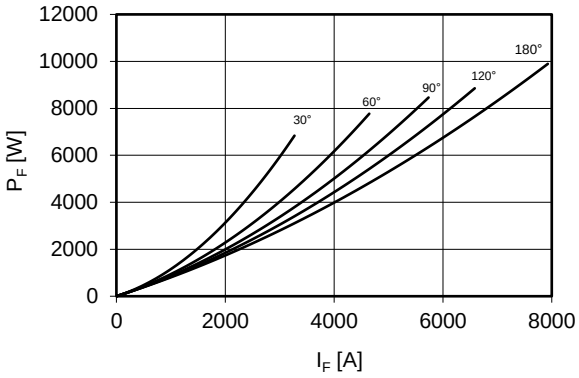
Green Power Solutions

RECTIFIER DIODE GPDC0799

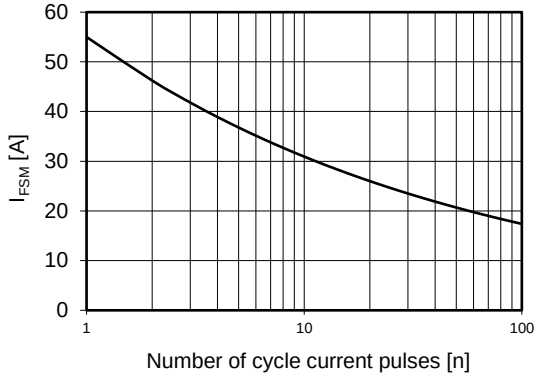
Current rating - sine wave



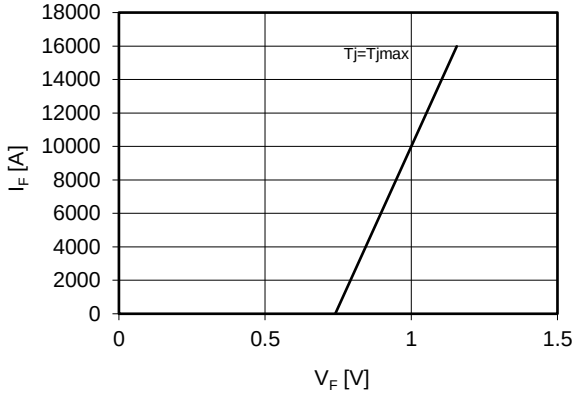
Power loss - sine wave



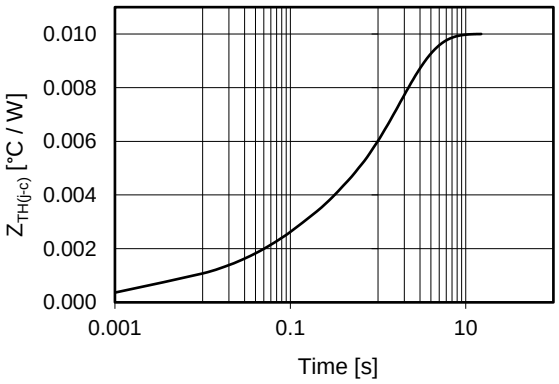
Maximum surge current d.s. cooled

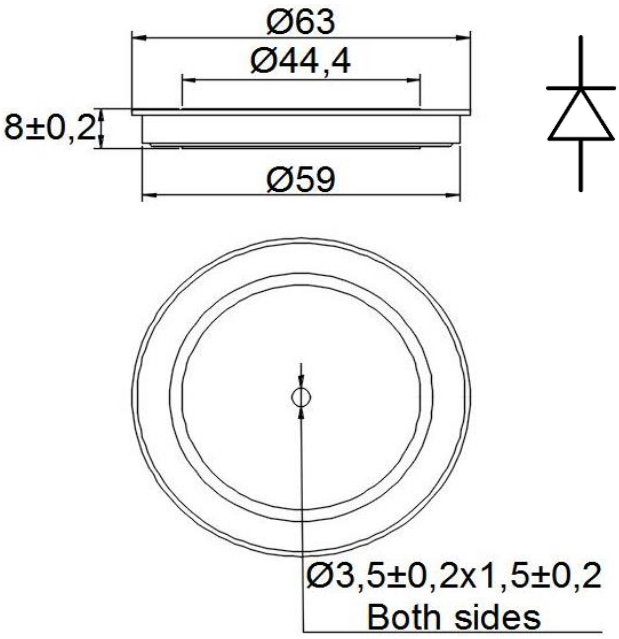


Forward voltage drop



Thermal Impedance (j-c)





Ordering information GPDC0799-VV

VV: blocking voltage / 100 (e.g. 04 for 400V)