

# GPDP3260

## RECTIFIER DIODE

<b>VOLTAGE UP TO</b>	<b>2200 V</b>
<b>AVERAGE CURRENT</b>	<b>2600 A</b>
<b>SURGE CURRENT</b>	<b>31 kA</b>

### BLOCKING CHARACTERISTICS

Characteristic		Conditions	Value
VRRM	Repetitive peak reverse voltage		2200 V
VRSM	Non-repetitive peak reverse voltage		2200 V
IRRM	Repetitive peak reverse current, max.	VRRM, single phase, half wave, $T_j = 175^\circ\text{C}$	100 mA

### FORWARD CHARACTERISTICS

IF(AV)	Average forward current	Sine wave, 180° conduction, $T_c = 100^\circ\text{C}$	2600 A
IF(RMS)	R.M.S. forward current	Sine wave, 180° conduction, $T_c = 100^\circ\text{C}$	4084 A
IFSM	Surge forward current	Non rep. half sine wave, 50 Hz, $V_R = 0$ V, $T_j = T_{jmax}$	31 kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination		4805 kA <sup>2</sup> s
VF(TO)	Threshold voltage	$T_j = T_{jmax}$	0,79 V
rF	Forward slope resistance	$T_j = T_{jmax}$	0,115 m $\Omega$
VFM	Peak forward voltage, max	Forward current $I_F = 4000$ A, $T_j = 25^\circ\text{C}$	1,22 V

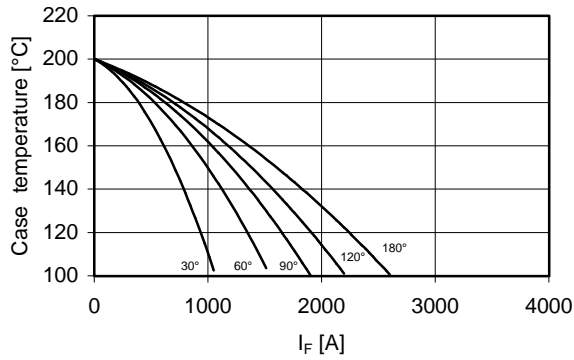
### SWITCHING CHARACTERISTICS

Qrr	Reverse recovery charge, typ	$T_j = T_{jmax}$ , $I_F = 2000$ A, $di/dt = -5$ A/ $\mu$ s $V_R = 100$ V	1900 $\mu$ C
Irr	Reverse recovery current		A
trr	Reverse recovery time		$\mu$ s
VFP	Forward recovery voltage	$T_j = T_{jmax}$ , $di/dt =$ A/ $\mu$ s	V

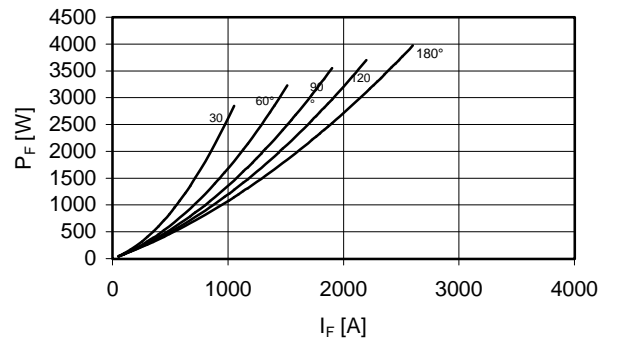
### THERMAL AND MECHANICAL CHARACTERISTICS

Rth(j-c)	Thermal resistance (junction to case)	Double side cooled	0,024 $^\circ\text{C/W}$
Rth(c-h)	Thermal resistance (case to heatsink)	Double side cooled	0,001 $^\circ\text{C/W}$
Tjmax	Max operating junction temperature		200 $^\circ\text{C}$
Tstg	Storage temperature		-40 / 200 $^\circ\text{C}$
F	Clamping force $\pm 10\%$		22 kN
	Mass		500 g

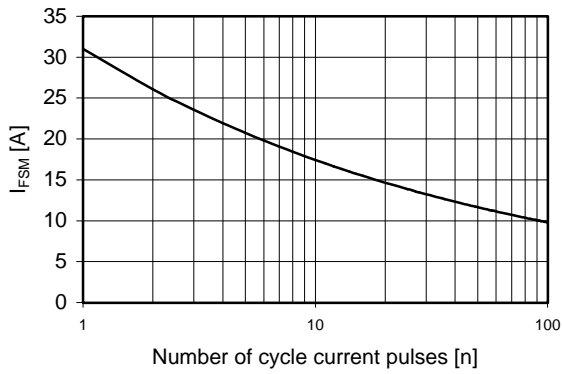
Current rating - sine wave



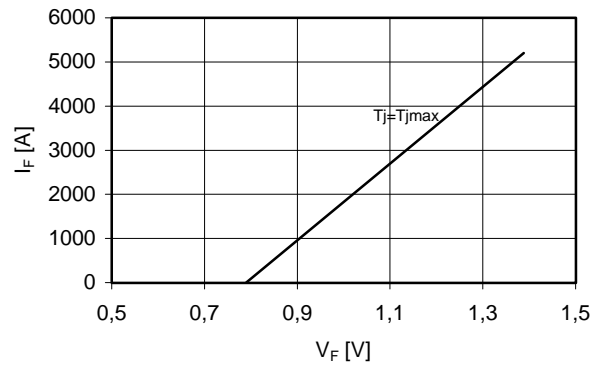
Power loss - sine wave



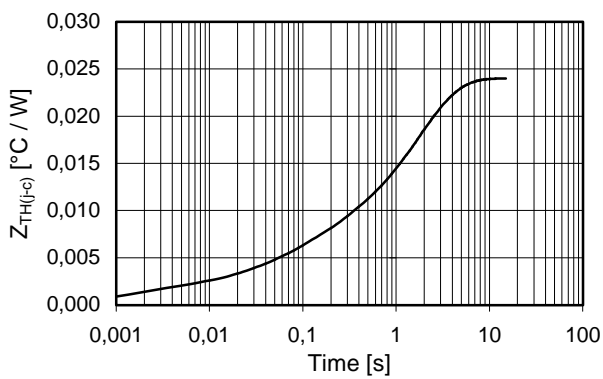
Maximum surge current  
d.s. cooled



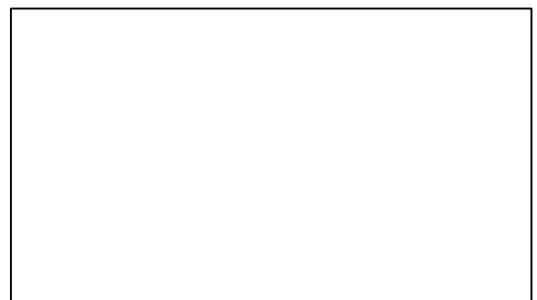
Forward voltage drop



Thermal Impedance (j-c)



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