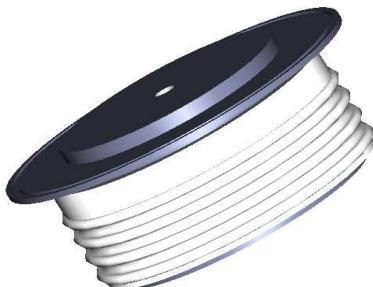


GPDN3113

AVALANCHE RECTIFIER DIODE

VOLTAGE UP TO 2000 - 2300 - 2600 V
AVERAGE CURRENT 1135 A
SURGE CURRENT 12 kA
BLOCKING CHARACTERISTICS

Characteristic	Conditions	Value
V _{RRM}	Repetitive peak reverse voltage	2000 - 2300 - 2600 V
V _{RSM}	Non-repetitive peak reverse voltage	V
I _{RRM}	Repetitive peak reverse current, max.	V _{RRM} , single phase, half wave, T _{jmax}
P _{PRM}	Peak reverse power, max	50 mA
	T _{jmax} , t _p = 20μs	50 kW

FORWARD CHARACTERISTICS

I _{F(AV)}	Average forward current	Sine wave, 180° conduction, T _h = 55°C	1135 A
I _{F(RMS)}	R.M.S. forward current	Sine wave, 180° conduction, Th = 55°C	1783 A
I _{FSM}	Surge forward current	Non rep. half sine wave, 50 Hz, V _R = 0 V, T _j = T _{jmax}	12 kA
I ² t	I ² t for fusing coordination		720 kA ² s
V _{F(TO)}	Threshold voltage	T _j = T _{jmax}	0.87 V
r _F	Forward slope resistance	T _j = T _{jmax}	0.390 mΩ
V _{FM}	Peak forward voltage, max	Forward current I _F = 2000 A, T _j = T _{jmax}	1.65 V

SWITCHING CHARACTERISTICS

Q _{rr}	Rverse recovery charge, typ	T _j = T _{jmax} , I _F = 1000 A, dI/dt = -5 A/μs	μC
I _{rr}	Reverse recovery current		A

THERMAL AND MECHANICAL CHARACTERISTICS

R _{th(j-c)}	Thermal resistance (junction to case)	Double side cooled	0.040 °C/W
R _{th(c-h)}	Thermal resistance (case to heatsink)	Double side cooled	0.007 °C/W
T _{jmax}	Max operating junction temperature		160 °C
T _{stg}	Storage temperature		-40 / 160 °C
F	Clamping force ± 10%		11 kN
	Mass		300 g