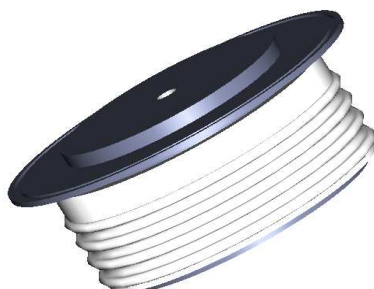


GPDN3127

AVALANCHE RECTIFIER DIODE



VOLTAGE UP TO **1700 - 2000 - 2300 V**
AVERAGE CURRENT **1270 A**
SURGE CURRENT **13.5 kA**

BLOCKING CHARACTERISTICS

Characteristic	Conditions	Value
VRRM	Repetitive peak reverse voltage	1700 - 2000 - 2300 V
VRSM	Non-repetitive peak reverse voltage	V
IRRM	Repetitive peak reverse current, max.	VRRM, single phase, half wave, Tjmax
PRSM	Peak reverse power, max	Tjmax, tp = 20μs

FORWARD CHARACTERISTICS

IF(AV)	Average forward current	Sine wave, 180° conduction, Th = 55°C	1270 A
IF(RMS)	R.M.S. forward current	Sine wave, 180° conduction, Th = 55°C	1995 A
IFSM	Surge forward current	Non rep. half sine wave, 50 Hz, VR = 0 V, Tj = Tjmax	13.5 kA
I²t	I² t for fusing coordination		911 kA²s
VF(TO)	Threshold voltage	Tj = Tjmax	0.83 V
rF	Forward slope resistance	Tj = Tjmax	0.300 mΩ
VFM	Peak forward voltage, max	Forward current IF = 2000 A, Tj = Tjmax	1.43 V

SWITCHING CHARACTERISTICS

Qrr	Reverse recovery charge, typ	Tj = Tjmax, IF = 1000 A, di/dt = -5 A/μs	μC
Irr	Reverse recovery current		A

THERMAL AND MECHANICAL CHARACTERISTICS

Rth(j-c)	Thermal resistance (junction to case)	Double side cooled	0.040 °C/W
Rth(c-h)	Thermal resistance (case to heatsink)	Double side cooled	0.007 °C/W
Tjmax	Max operating junction temperature		160 °C
Tstg	Storage temperature		-40 / 160 °C
F	Clamping force ± 10%		11 kN
	Mass		300 g