RECTIFIER DIODE
GDZP860

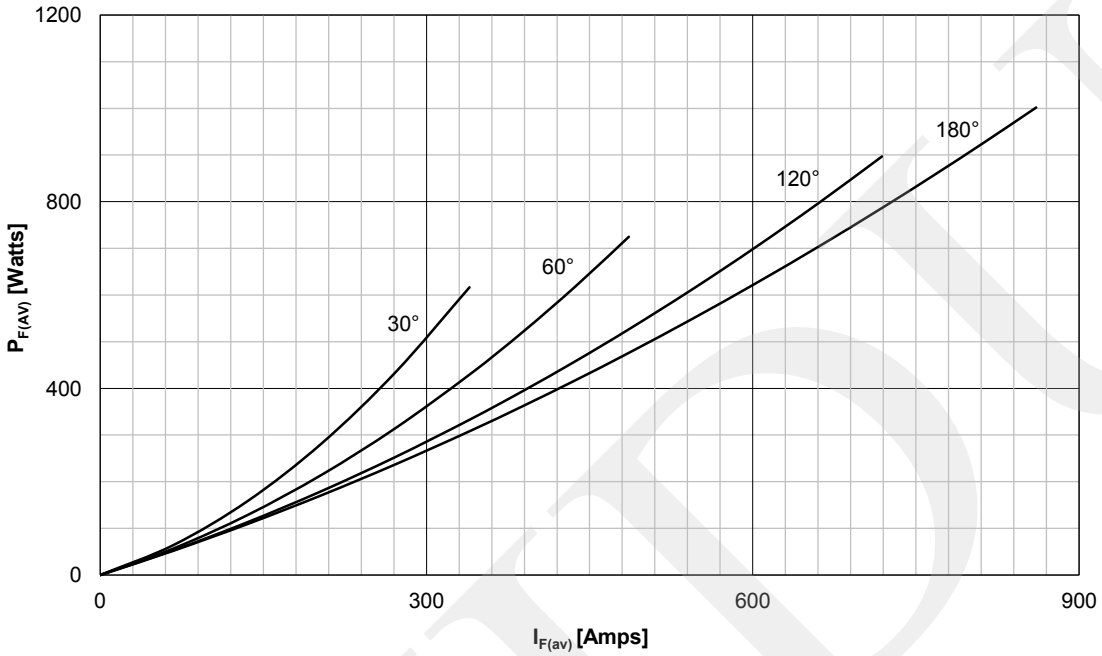
Features
- Full blocking capability over wide temperature range
- Pressure contacts technology for high reliability

Key Parameters
V_{RRM} = 1800V
$I_{F(AV)}$ = 860A
I_{FSM} = 16800A
$V_{F(TO)}$ = 0.74V
r_F = 0.20mΩ

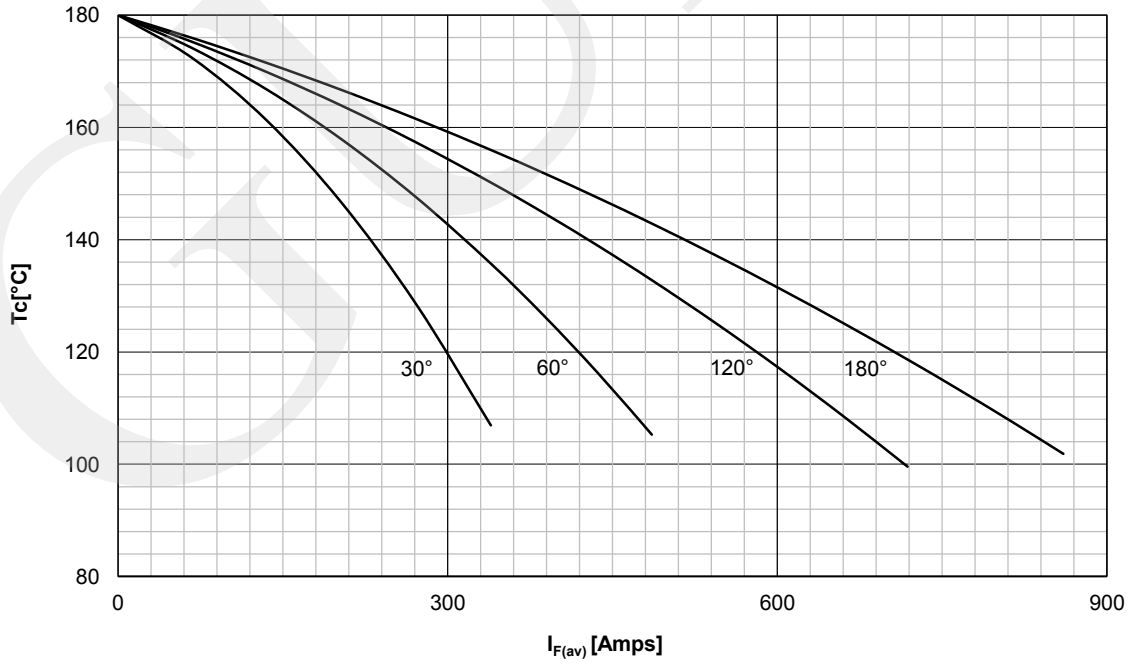
Applications
- Power Supplies
- Free-wheeling Diodes
- Uncontrolled Rectifiers
- Battery chargers

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		180	200 - 1800	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	180	50	mA
CONDUCTING					
$I_{F(AV)}$	Mean Forward current	180° sin ,50 Hz, T_c=100°C		860	A
I_{FRMS}	RMS Forward current			1350	A
I_{FSM}	Surge Forward current	Sine wave, 10 ms Without reverse voltage	25	16800	A
			180	16000	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	1411×10^3	A^2s
			180	1280×10^3	A^2s
V_F	Peak Forward voltage	Peak forward current = 2500A	180	1.48	V
$V_{F(TO)}$	Threshold voltage		180	0.74	V
r_F	Forward slope resistance		180	0.20	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case		0.078	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink		0.02	°C/W
T_j	Max. junction temperature			180	°C
T_{stg}	Storage temperature			-40 180	°C
M	Mounting Torque			20	NM
W	Weight (Approx.)			900	gm

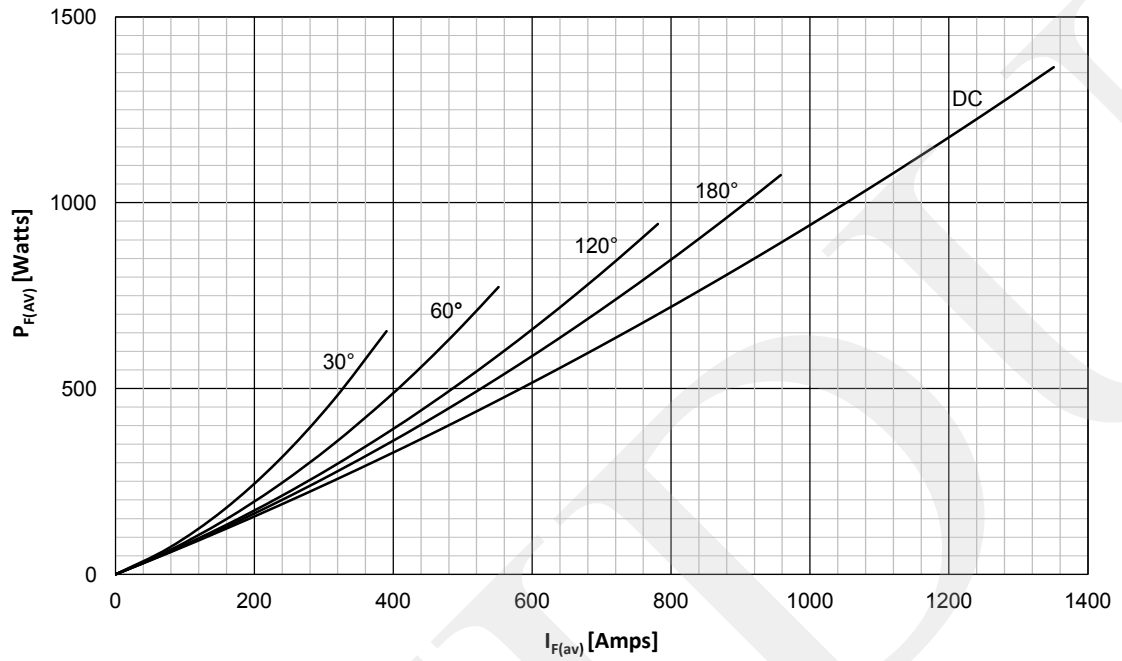
DISSIPATION CHARACTERISTICS
SINE WAVE



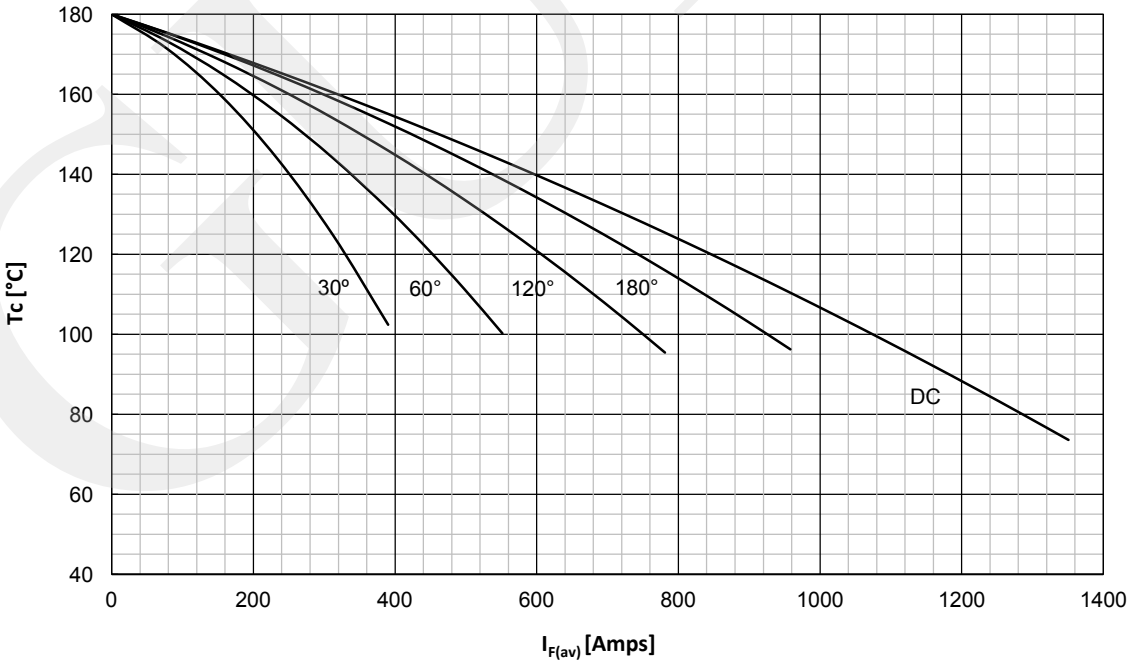
FORWARD CURRENT DERATING CURVE
SINE WAVE



DISSIPATION CHARACTERISTICS
SQUARE WAVE

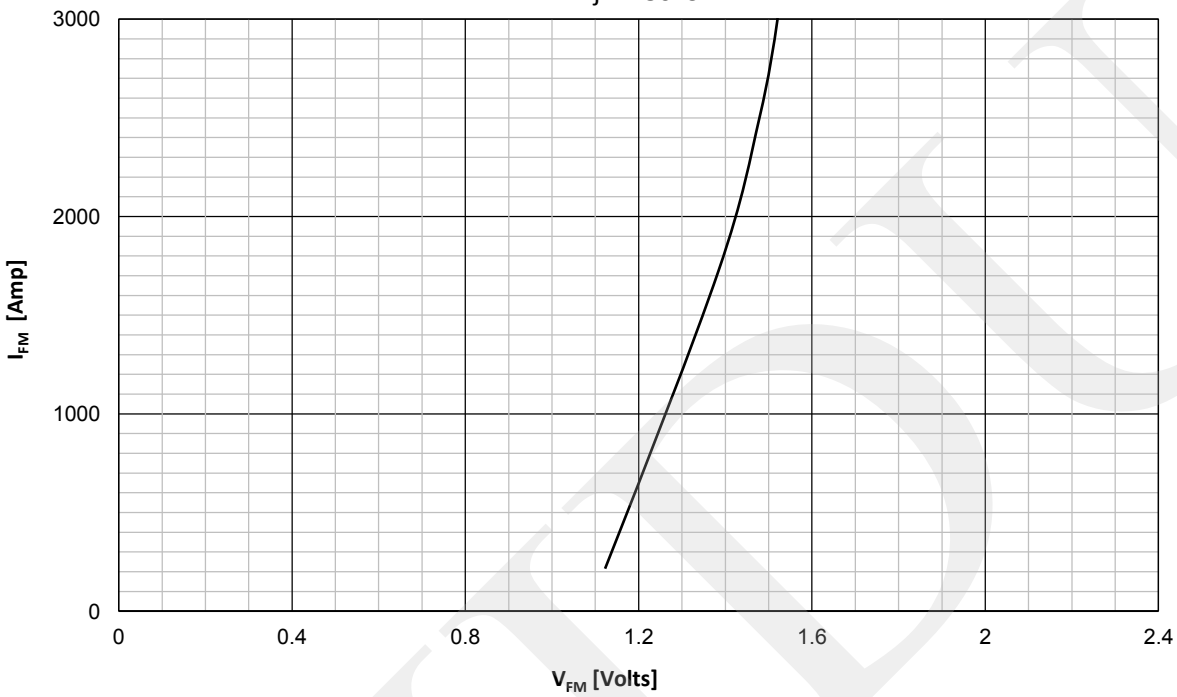


FORWARD CURRENT DERATING CURVE
SQUARE WAVE

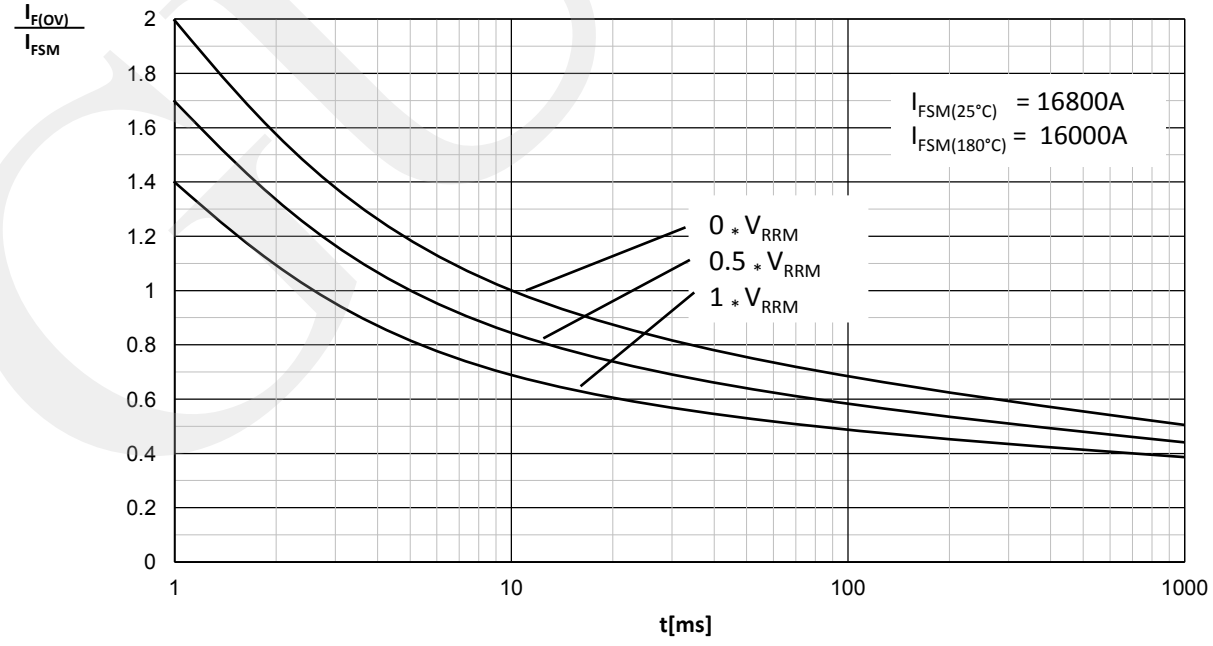


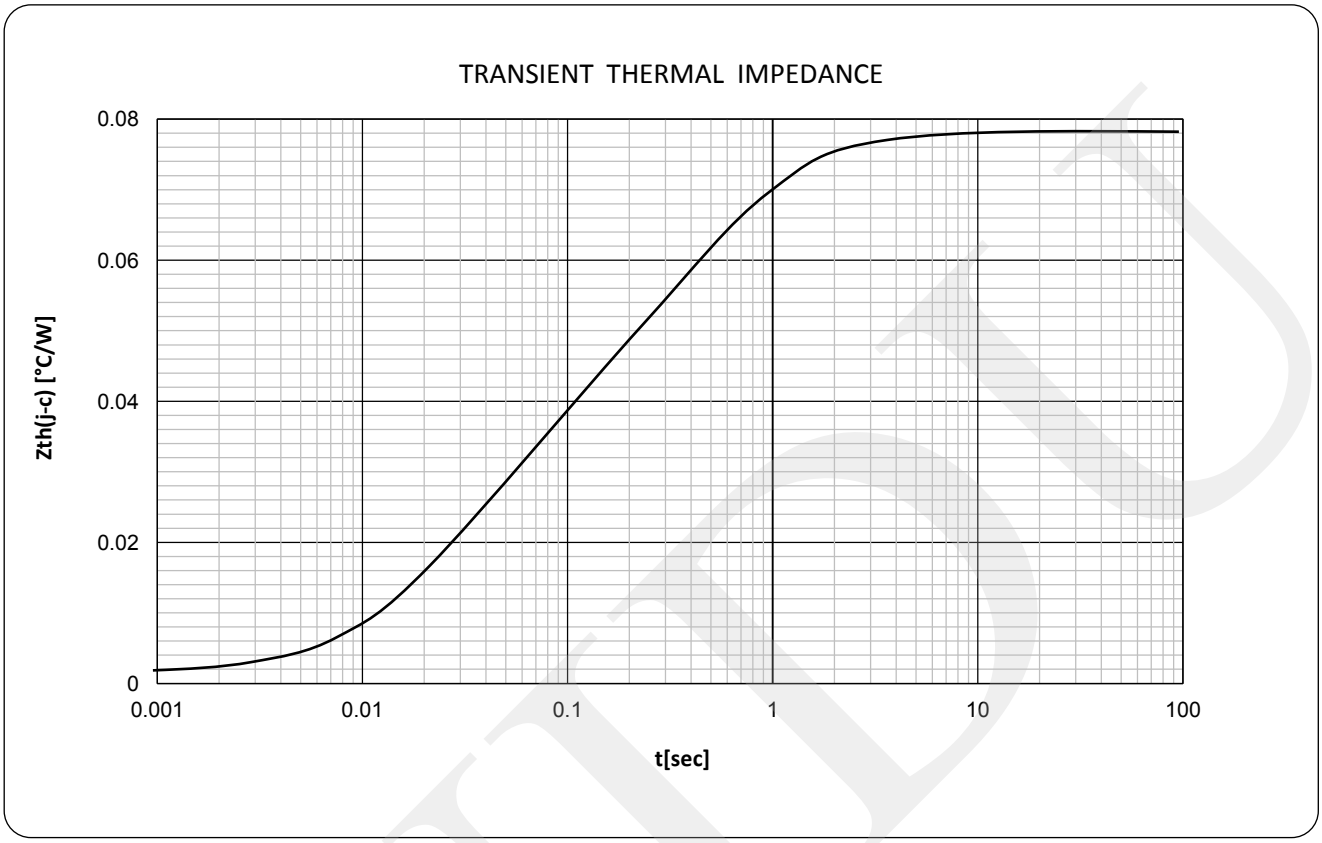
FORWARD CHARACTERISTICS

Tj = 180°C



SURGE CHARACTERISTICS



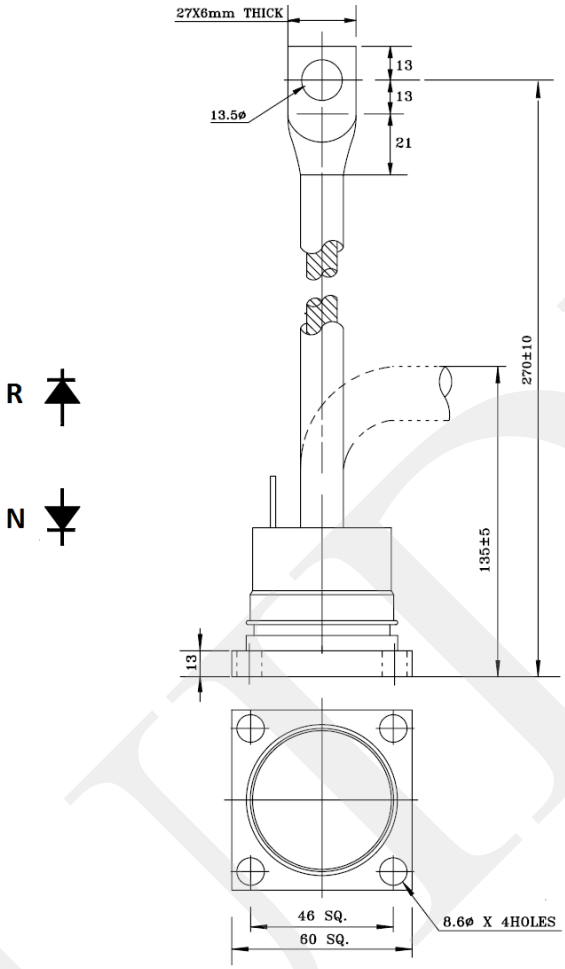


ORDERING INFORMATION

GDZP	860	N	18	F
Rectifier Diode	Current code	Polarity R= Base Anode N= Base Cathode	Voltage Code Code X 100 = V_{RRM}	F = Flat Base

Order Code GDZP860N18F – 1800V V_{RRM}, Flat base, Diode with base Cathode

Outline



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