RECTIFIER DIODE
GDZP70

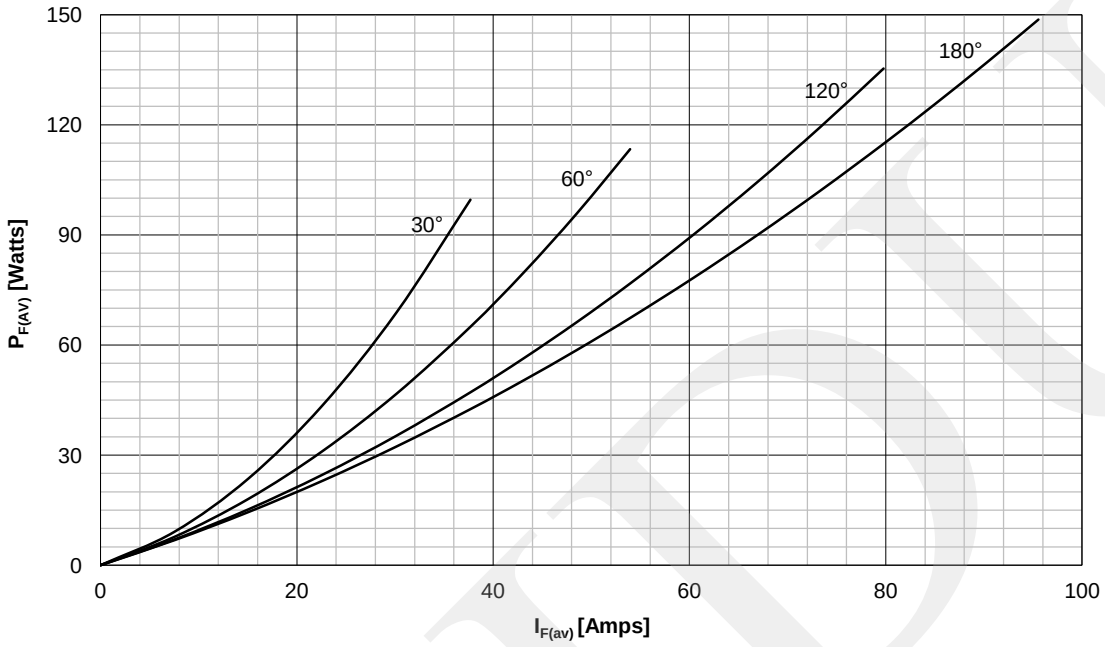
Features
- Full blocking capability over wide temperature range
- Hermetic metal case with glass insulator
- Threaded stud

Key Parameters
V_{RRM} = 1600V
$I_{F(AV)}$ = 95A
I_{FSM} = 1150A
$V_{F(TO)}$ = 0.85V
r_F = 3.0mΩ

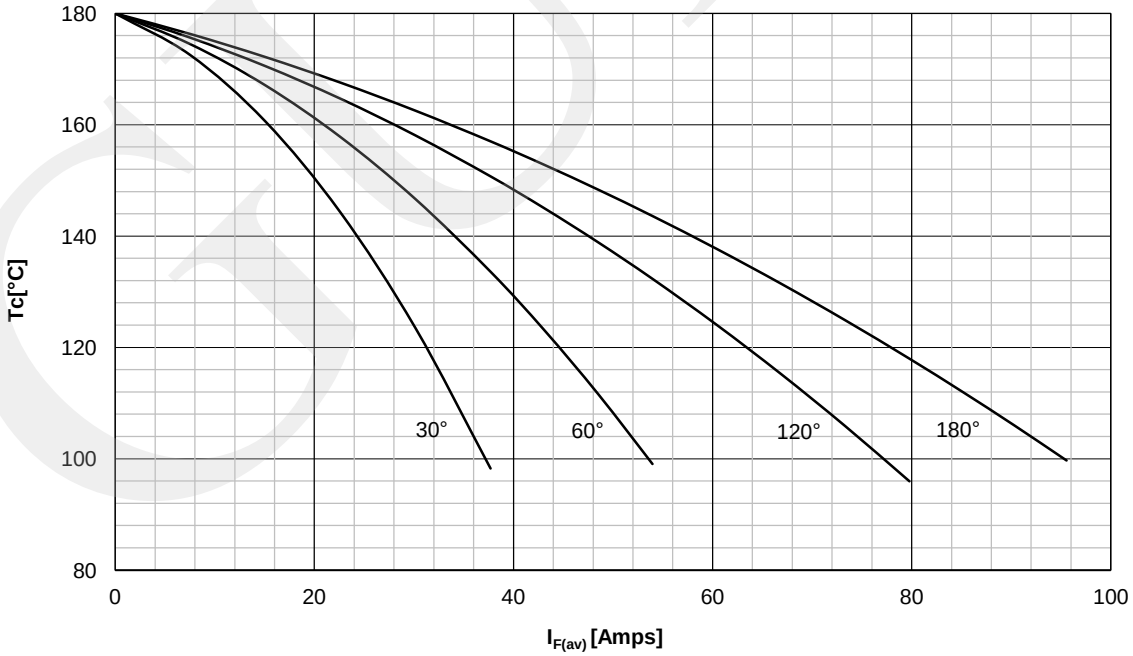
Applications
- Power Supplies
- Free-wheeling Diodes
- Uncontrolled Rectifiers

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		180	200 - 1600	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	180	10	mA
CONDUCTING					
$I_{F(AV)}$	Mean Forward current	180° sin ,50 Hz, T_c=100°C T_c=125°C		95 70	A
I_{FRMS}	RMS Forward current			150	A
I_{FSM}	Surge Forward current	Sine wave, 10 ms Without reverse voltage	25	1150	A
			180	1000	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	6612	A^2s
			180	5000	A^2s
V_F	Peak Forward voltage	Peak forward current = 210A	180	1.50	V
$V_{F(TO)}$	Threshold voltage		180	0.85	V
r_F	Forward slope resistance		180	3.0	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case		0.54	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink		0.20	°C/W
T_j	Max. junction temperature			180	°C
T_{stg}	Storage temperature			-40 180	°C
M	Mounting Torque			4	NM
W	Weight (Approx.)			48	gm

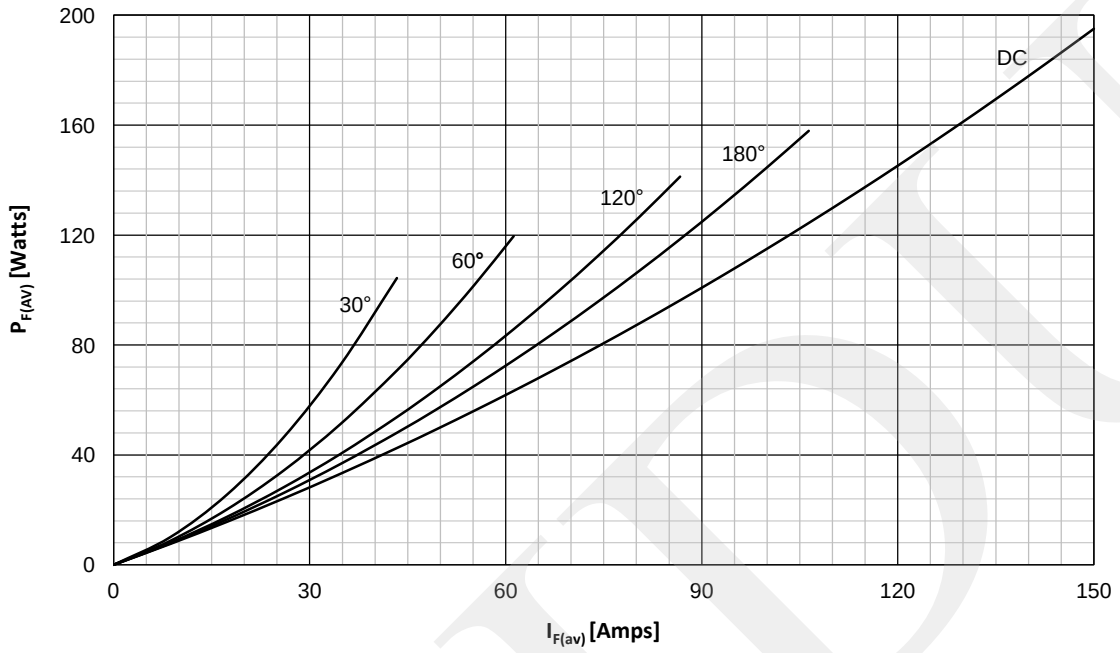
DISSIPATION CHARACTERISTICS
SINE WAVE



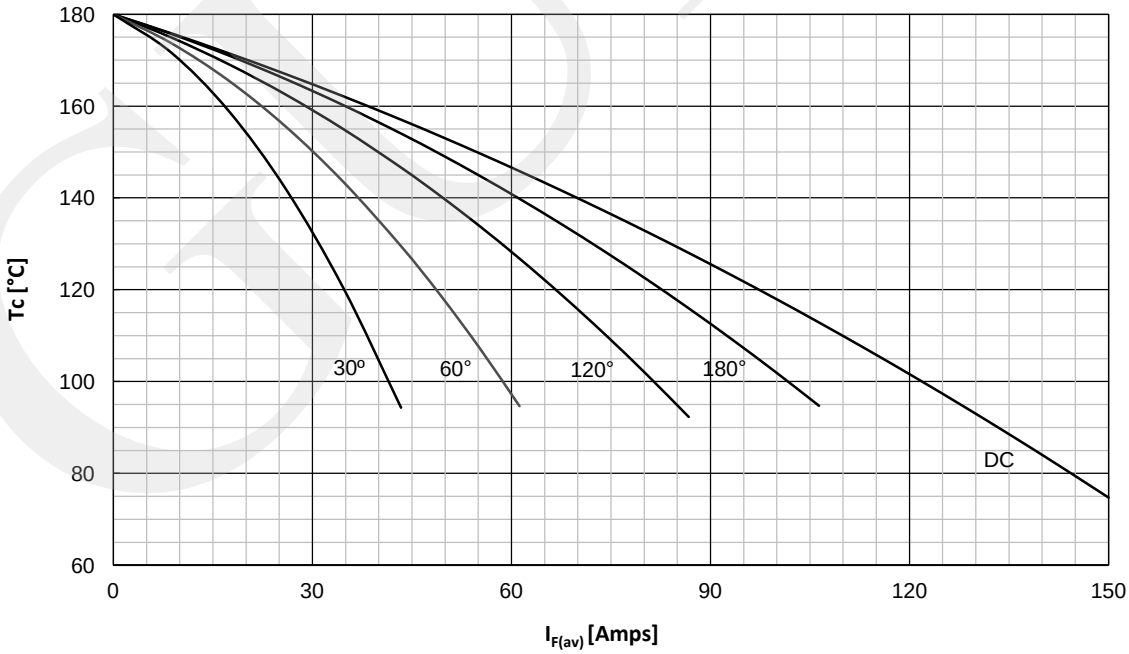
FORWARD CURRENT DERATING CURVE
SINE WAVE

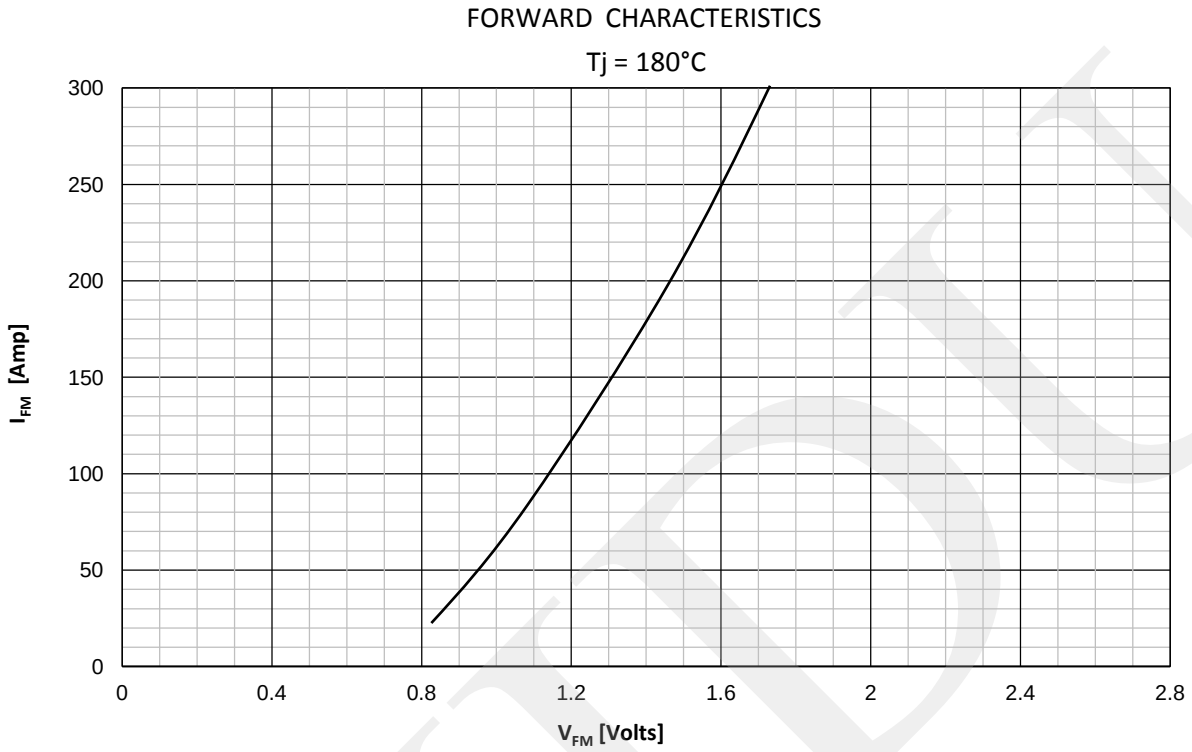


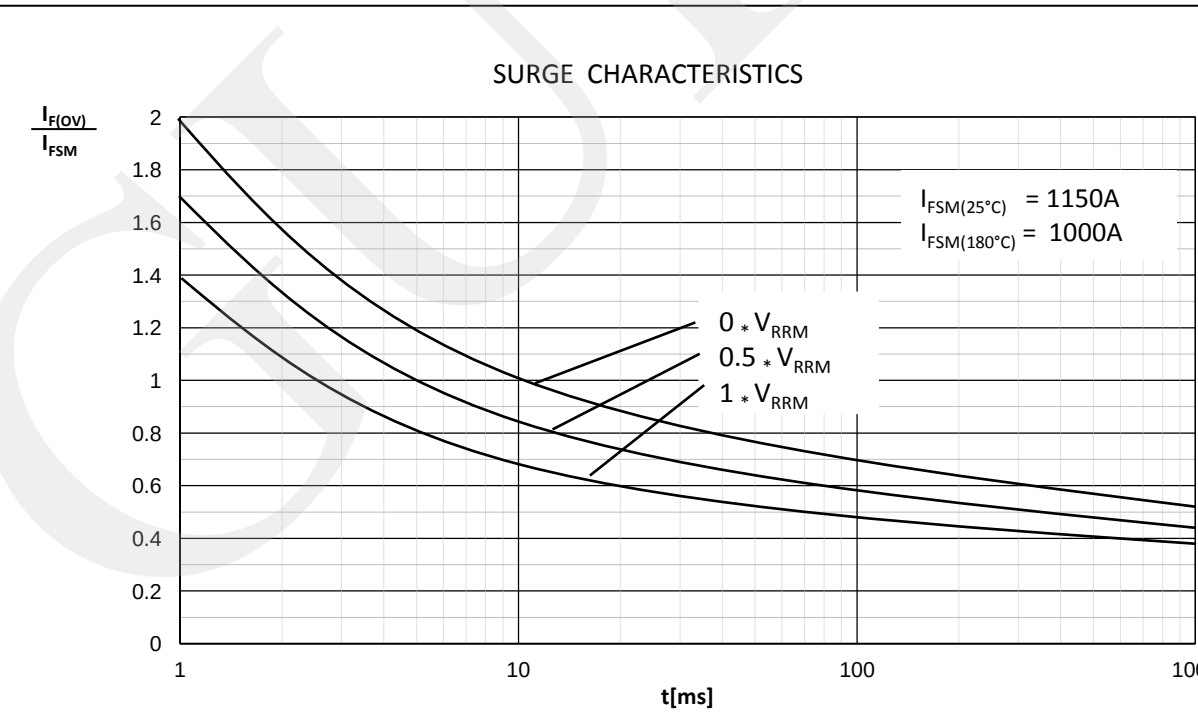
DISSIPATION CHARACTERISTICS
SQUARE WAVE

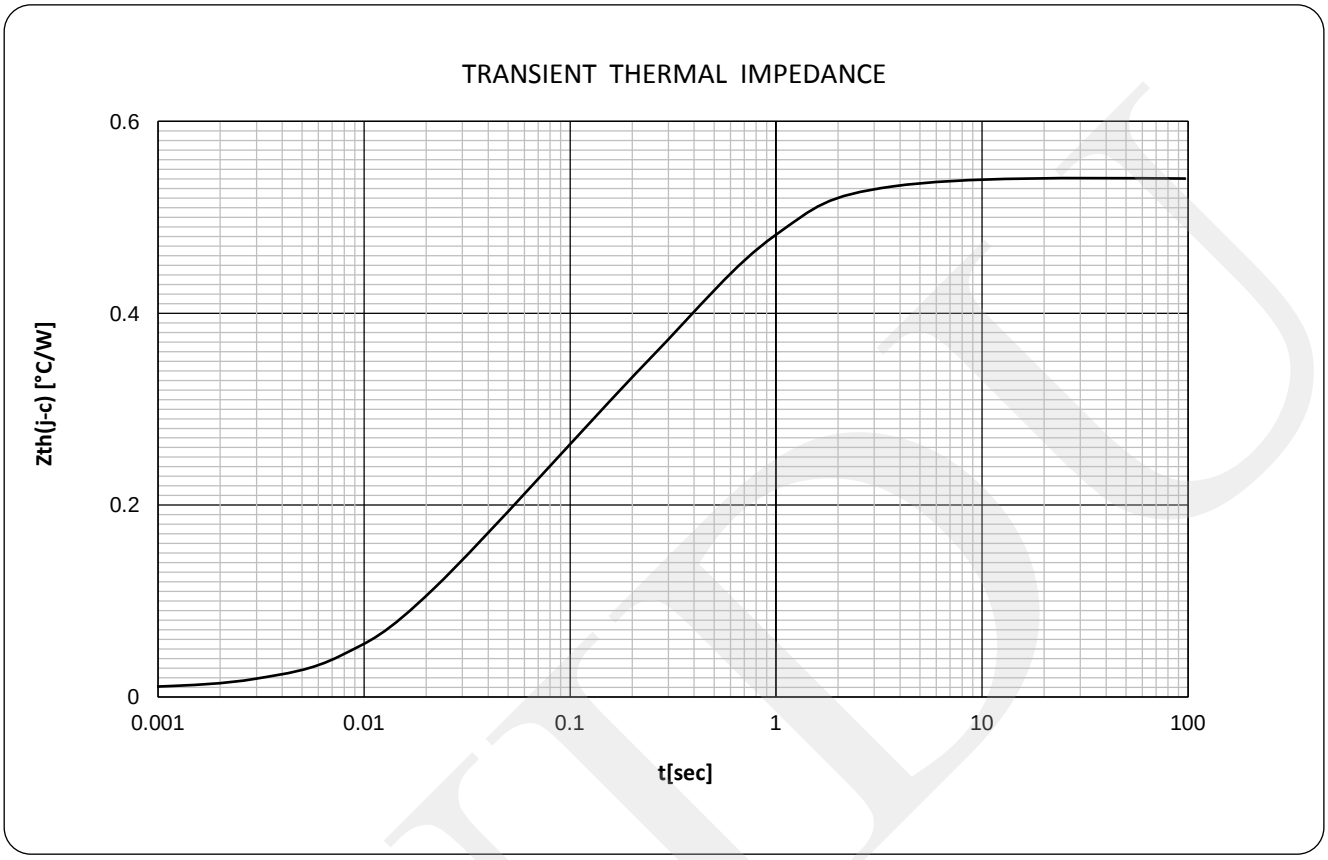


FORWARD CURRENT DERATING CURVE
SQUARE WAVE




FORWARD CHARACTERISTICS
Tj = 180°C
300
250
200
150
100
50
0
0
0.4
0.8
1.2
1.6
2
2.4
2.8
I_FM [Amp]
V_FM [Volts]


SURGE CHARACTERISTICS
I_F(OV) / I_FSM
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1
10
100
1000
t[ms]
I_FSM(25°C) = 1150A
I_FSM(180°C) = 1000A
0 * V_RRM
0.5 * V_RRM
1 * V_RRM

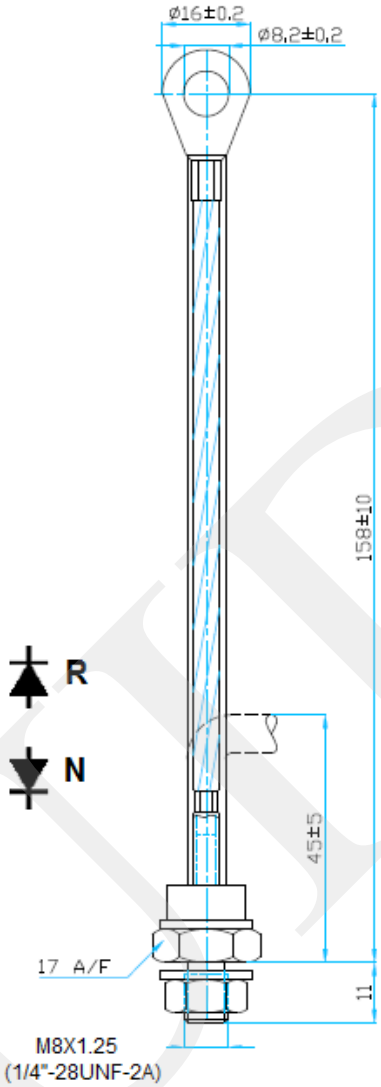


ORDERING INFORMATION

GDZP	70	N	X X	M
Rectifier Diode	Current code	Polarity R= Stud Anode N= Stud Cathode	Voltage Code Code X 100 = V_{RRM}	Stud Threads M = Stud M8 X 1.25 U = Stud 1/4" UNF

Order Code GDZP70R16M – 1600V V_{RRM}, M8 Stud, Diode with stud anode.

Outline



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