硅都 GUIDU ® 功率半导体专家 Power Semiconductor Expert

POWER BLOCK
Thyristor / Diode Module
GDTT/TD95

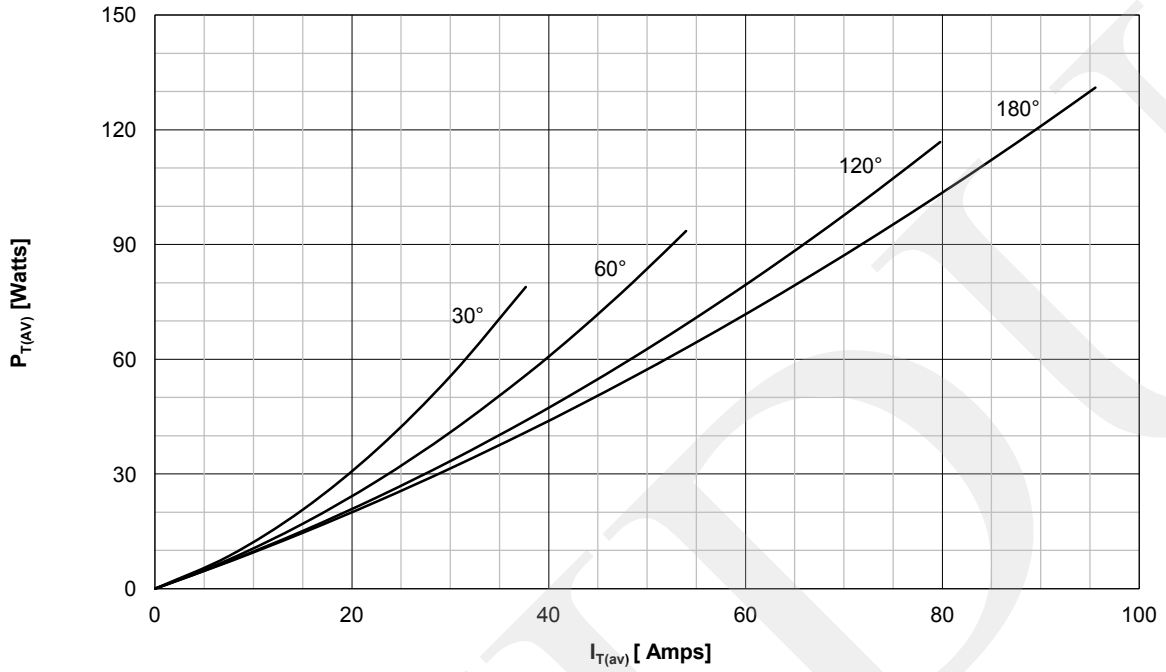
Features
- Full blocking capability over wide temperature range
- Electrically insulated base plate
- Hard soldered joints for high reliability

Key Parameters
V_{DRM} /V_{RRM} = 1800V
$I_{T(AV)}$ = 95A
I_{TSM} = 2000A
$V_{T(TO)}$ = 0.90V
r_T = 2.0mΩ

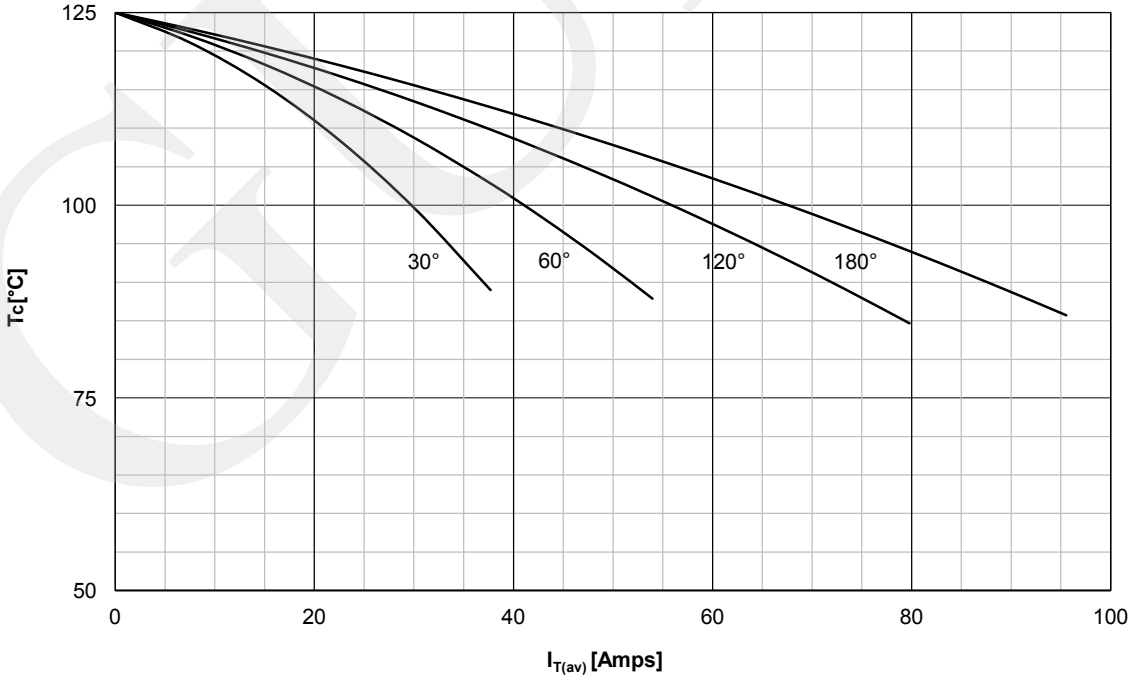
Applications
- Power Supplies
- DC motor control
- Controlled Rectifiers

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		125	800 - 1800	V
V_{DRM}	Repetitive peak off-state voltage		125	800 - 1800	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	125	20	mA
I_{DRM}	Repetitive peak off-state current	V= V_{DRM}	125	20	mA
CONDUCTING					
$I_{T(AV)}$	Mean on-state current	180° sin ,50 Hz, T_{CASE}=85°C		95	A
I_{RMS}	RMS on-state current			150	A
I_{TSM}	Surge on-state current	Sine wave, 10 ms Without reverse voltage	25	2000	A
			125	1750	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	20000	A^2s
			125	15312	A^2s
V_T	On-state voltage	On-state current = 300A	25	1.65	V
$V_{T(TO)}$	Threshold voltage		125	0.9	V
r_T	On-state slope resistance		125	2.0	mΩ
SWITCHING					
di/dt	Critical rate of rise of on-state current		125	150	A/μs
dv/dt	Critical rate of rise of off-state voltage	V_{DR} = 67%V_{DRM}	125	1000	V/μs
GATE					
I_{gt}	Gate trigger current	V_D=5V	25	150	mA
I_H	Holding current	V_D=5V, gate open circuit	25	250	mA
I_L	Latching current	V_D=5V	25	600	mA
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, 180°sine	Junction to case, per arm per module		0.30 0.15	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, per arm per module		0.2 0.1	°C/W
T_j	Max. junction temperature			125	°C
T_{stg}	Storage temperature			-40 125	°C
V_{ISOL}	Insulation test voltage,RMS	F=50Hz, 1min		2.5	KV
M1	Mounting torque			5 ± 15%	Nm
M2	Terminal connection torque			3 ± 15%	Nm
	Weight			105	g

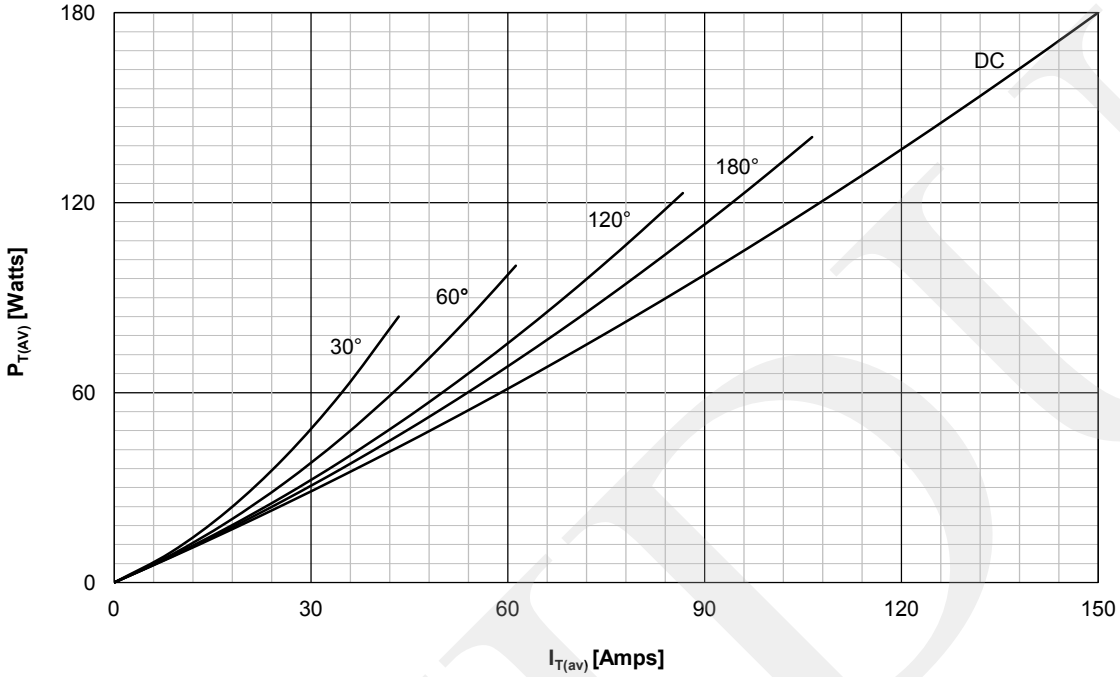
DISSIPATION CHARACTERISTICS PER ARM
SINE WAVE



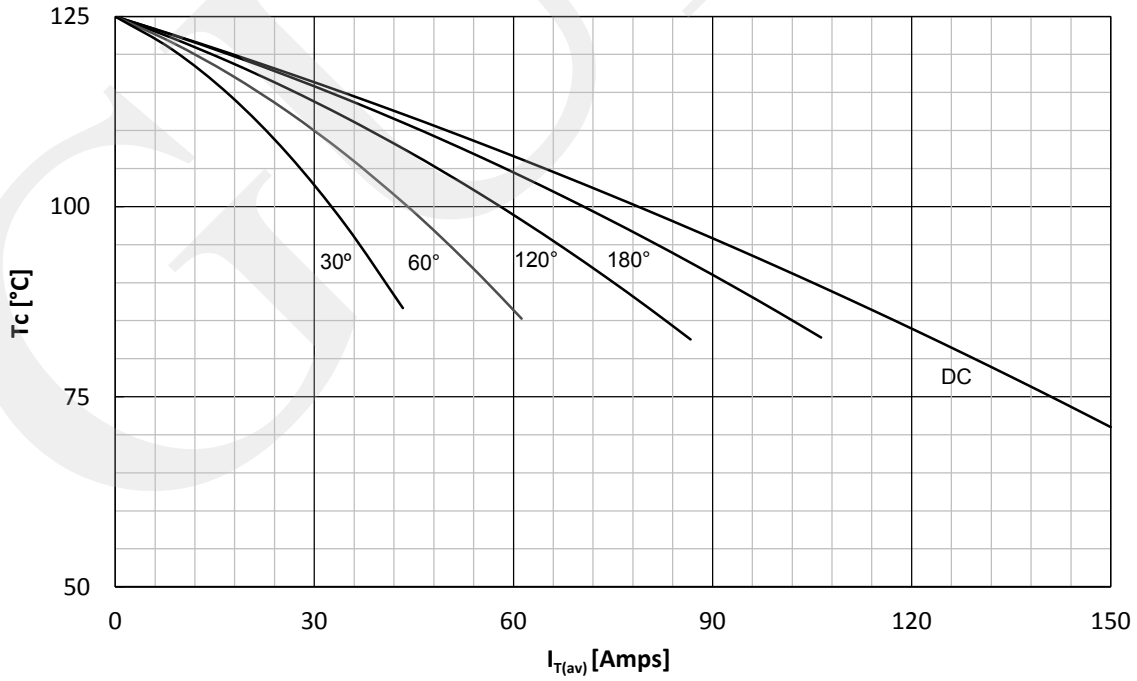
ON STATE CURRENT DERATING CURVE PER ARM
SINE WAVE



DISSIPATION CHARACTERISTICS PER ARM
SQUARE WAVE

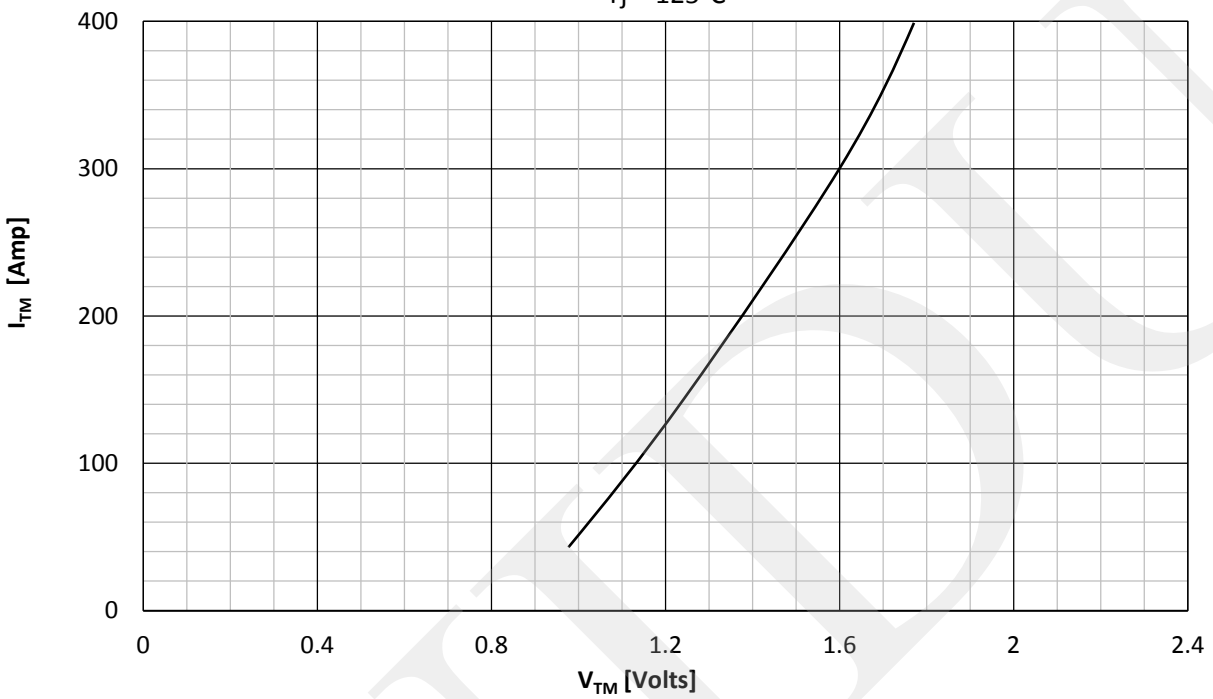


ON STATE CURRENT DERATING CURVE PER ARM
SQUARE WAVE

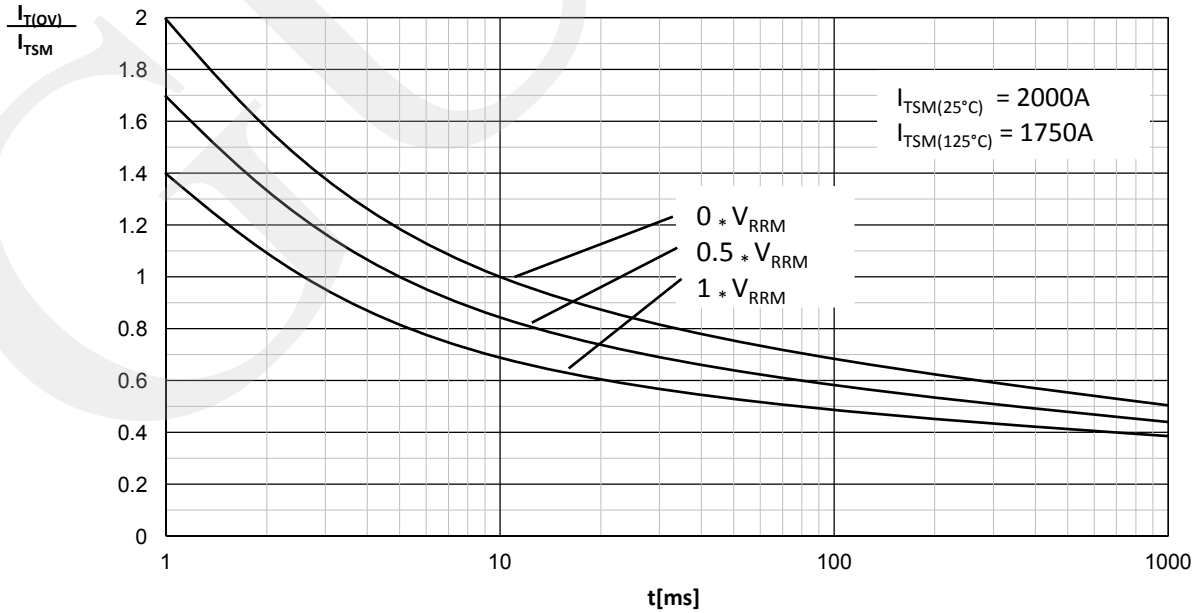


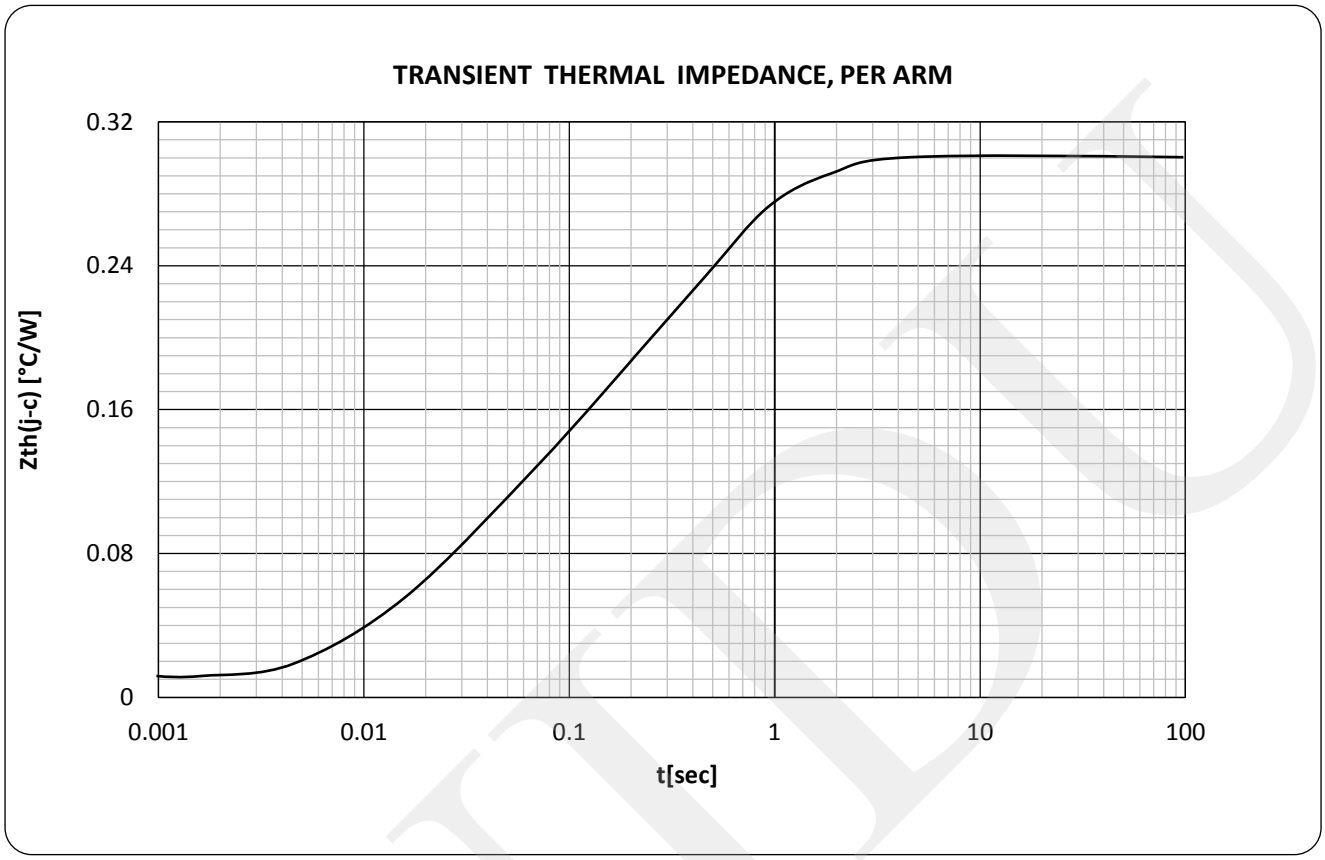
ON STATE CHARACTERISTICS

Tj = 125°C



SURGE CHARACTERISTICS



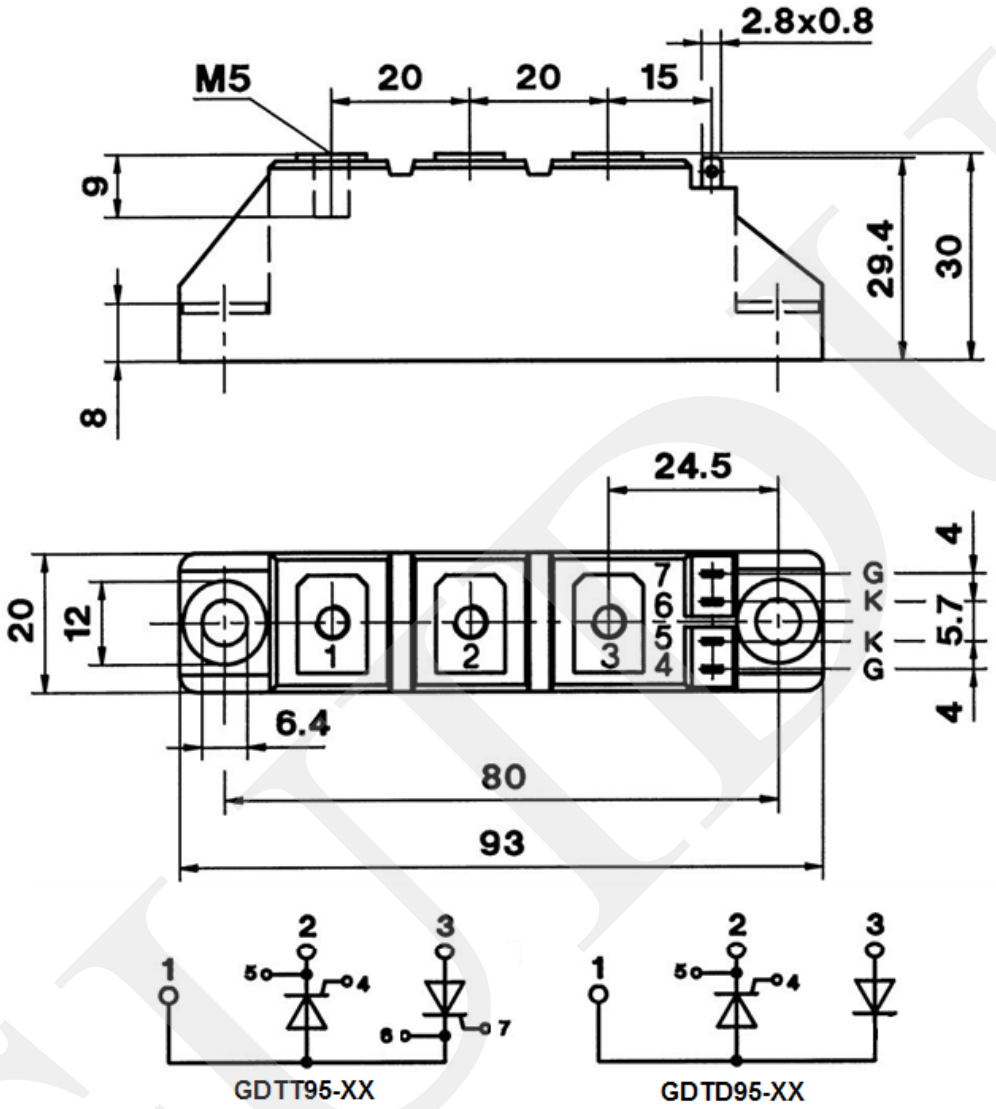


ORDERING INFORMATION

GD	TT	95	X X
Fixed code	TT- Thyristor- Thyristor Module TD- Thyristor- Diode Module	Current Code	Voltage Code Code X 100 = V_{DRM}/V_{RRM}

Order Code GDTT95-18 – 1800V V_{DRM}/V_{RRM}, thyristor module

Outline



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