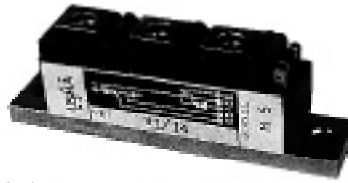


Power Module Assembly



PBT 250

(Thyristor / Thyristor Module)



Technical Data

Typical applications : DC Motor control, Temperature control, Professional light dimming.

Type No.	V_{RRM} (Volts)	V_{RSM} (Volts)
PBT 250/04	400	500
PBT 250/08	800	900
PBT 250/12	1200	1300
PBT 250/16	1600	1700

Features

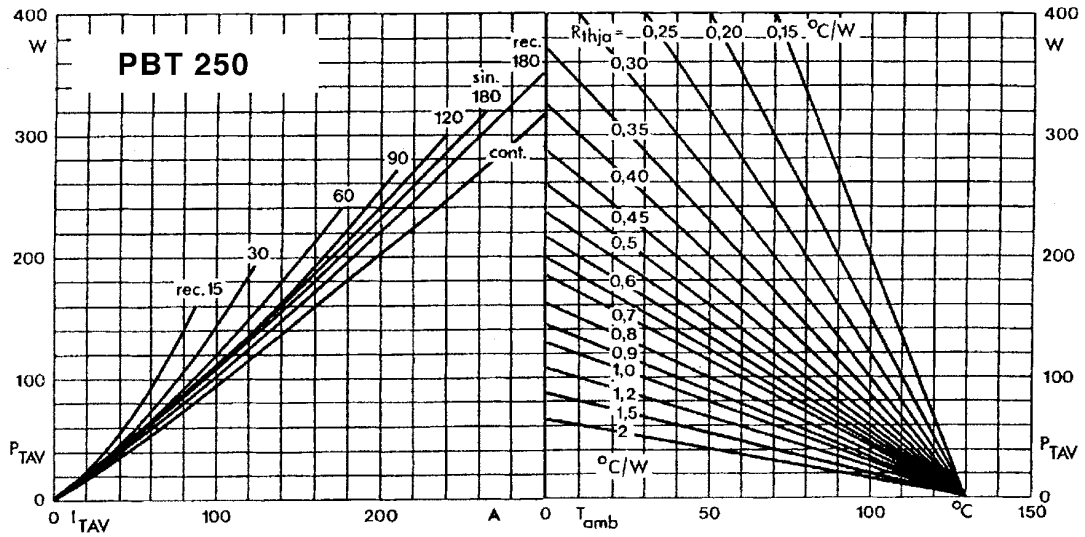
- Heat transfer through ceramic isolated Cu base
- Isolation between contacts & mounting base is 2.5KV(rms)
- Weight 430 gm

dv/dt 200 V/ s typ. (Higher upto 1000 V/ s available on request)

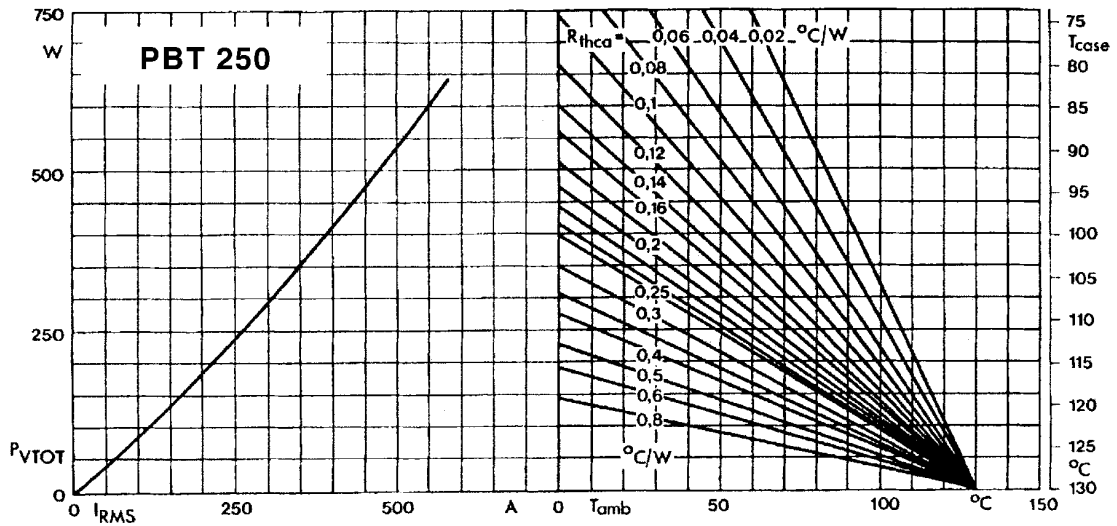
Symbol	Conditions	Units
$I_{T(AV)}$	Sin 180 ; T _{case} = 85 °C	250 A
I_{TSM}	T _{vj} = 25 °C; 10 ms:	9000 A
	T _{vj} = 125 °C; 10 ms:	8000 A
I ² T	T _{vj} = 25 °C; 8.3...10 ms	405000 A ² s
	T _{vj} = 125 °C; 8.3...10 ms	320000 A ² s
di/dt _{cr}	T _{vj} = 125 °C	100 A/μs
tq	T _{vj} = 125 °C	50...150 μs
I _H	T _{vj} = 25 °C typ/max.	150/500 mA
I _L	T _{vj} = 25 °C; R _G = 33 ; typ/max.	0.3/2 A
V _T	T _{vj} = 25 °C ; I _T = 750 A	1.50V max
V _O	T _{vj} = 125 °C	.925 V
R ₀	T _{vj} = 125 °C	0.45 m
I _{DRM} /I _{RRM}	T _{vj} = 125 °C	50 mA
V _{GT}	T _{vj} = 25 °C	3V
I _{GT}	T _{vj} = 25 °C	200 mA
V _{GD}	T _{vj} = 125 °C	0.25 V
I _{GD}	T _{vj} = 125 °C	10 mA
R _{th(j-c)}	cont.	0.14/0.70 °C/W
	Sin. 180 per thyristor/ per module	0.150/0.075 °C/W
	rec. 120	0.165/0.083 °C/W
	R _{th(c-h)}	0.040/0.020 °C/W
	T _{vj}	-40.....+ 130 °C
T _{stg}	-40.....+ 130 °C	
V _{ISOL}	A.C. 50 Hz; r.m.s.; 1s/1min	3 KV/2.5 KV

* 1600 VOLTS Available on request

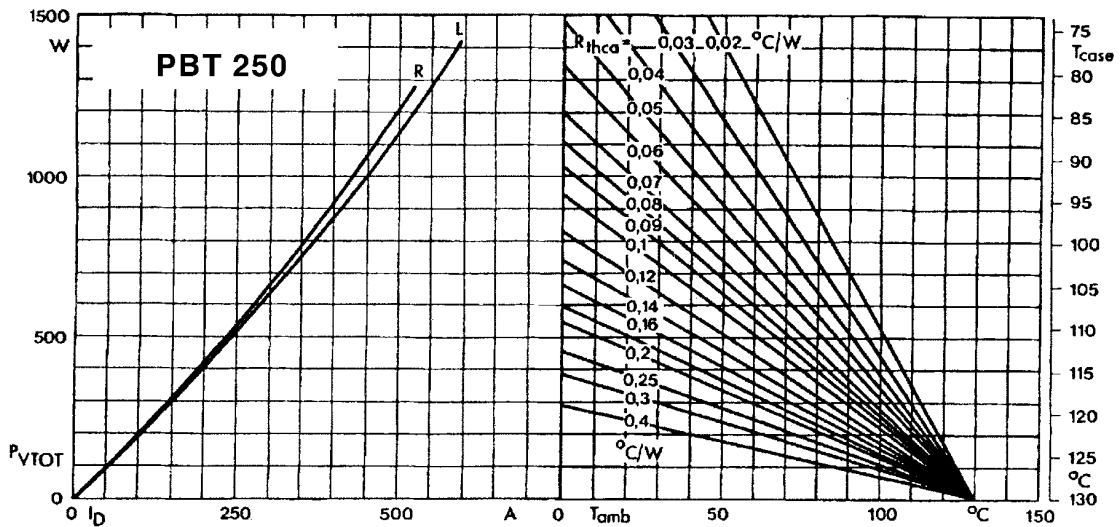




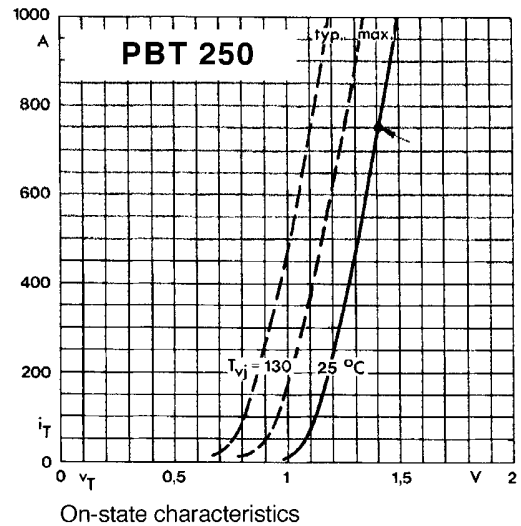
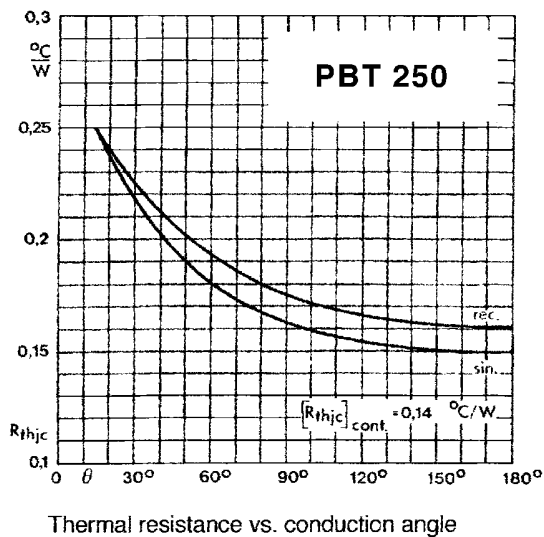
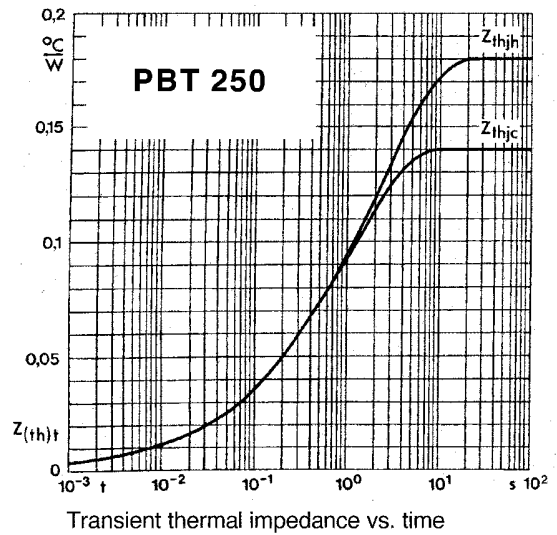
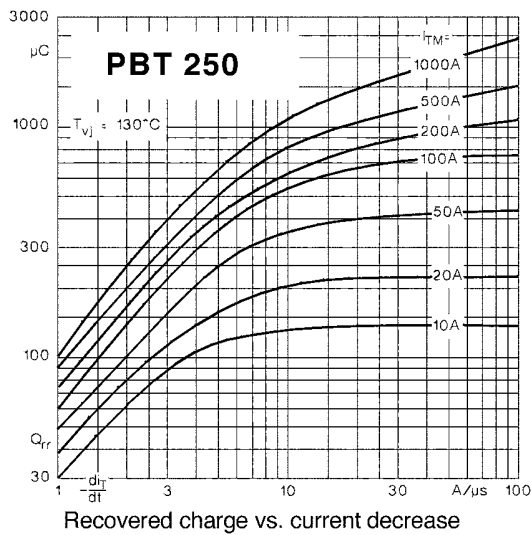
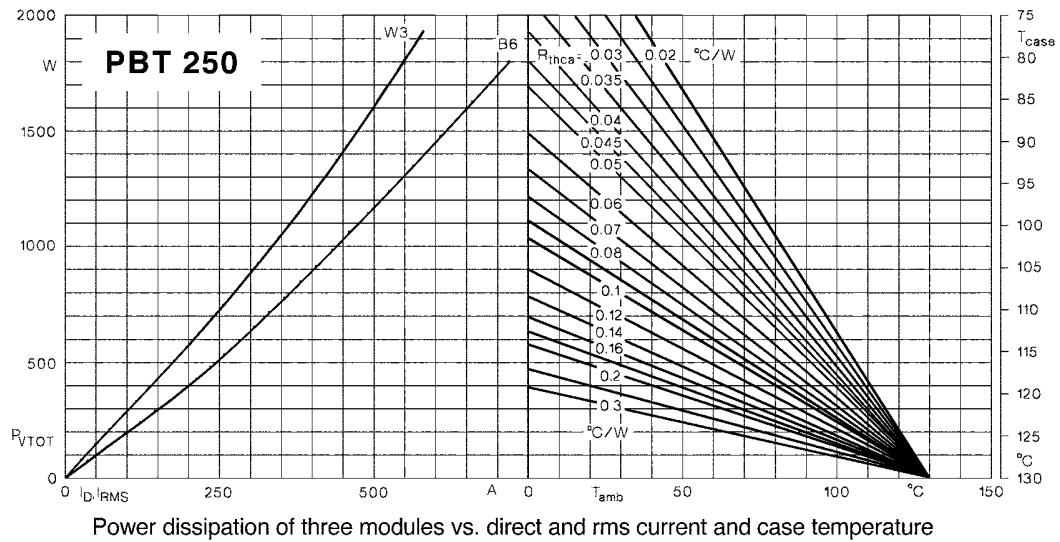
Power dissipation per thyristor vs. on-state current and ambient temperature

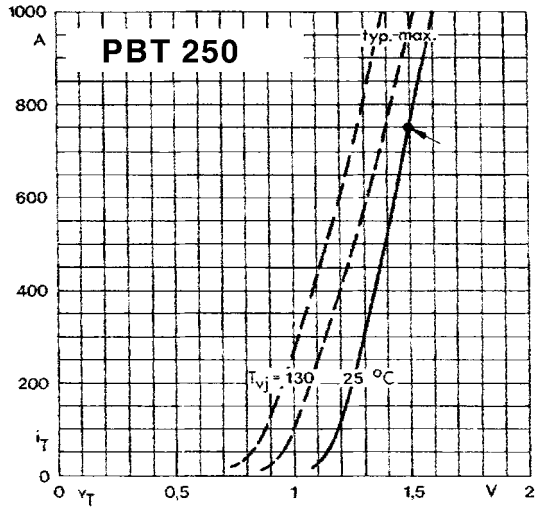


Power dissipation per module vs. rms current and case temperature



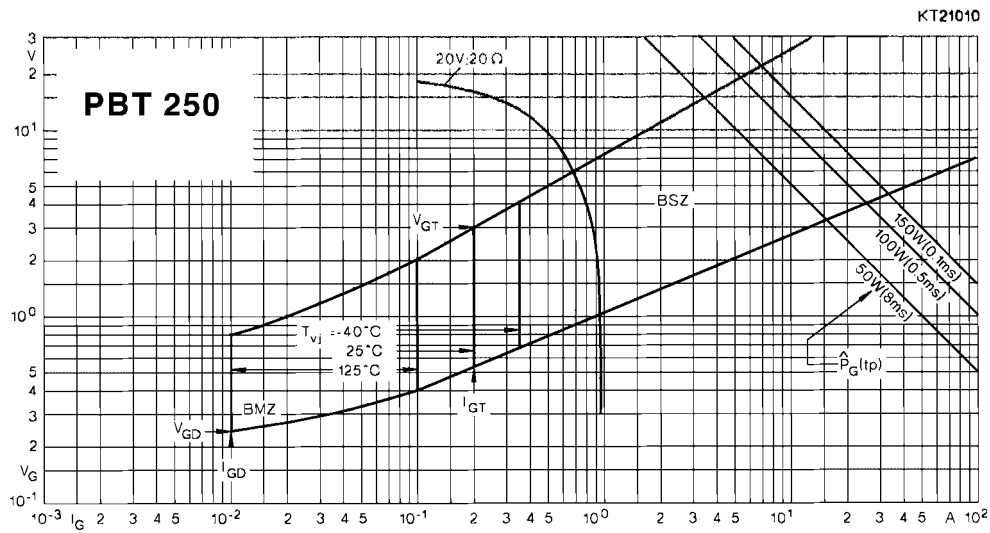
Power dissipation of two modules vs. direct current and case temperature





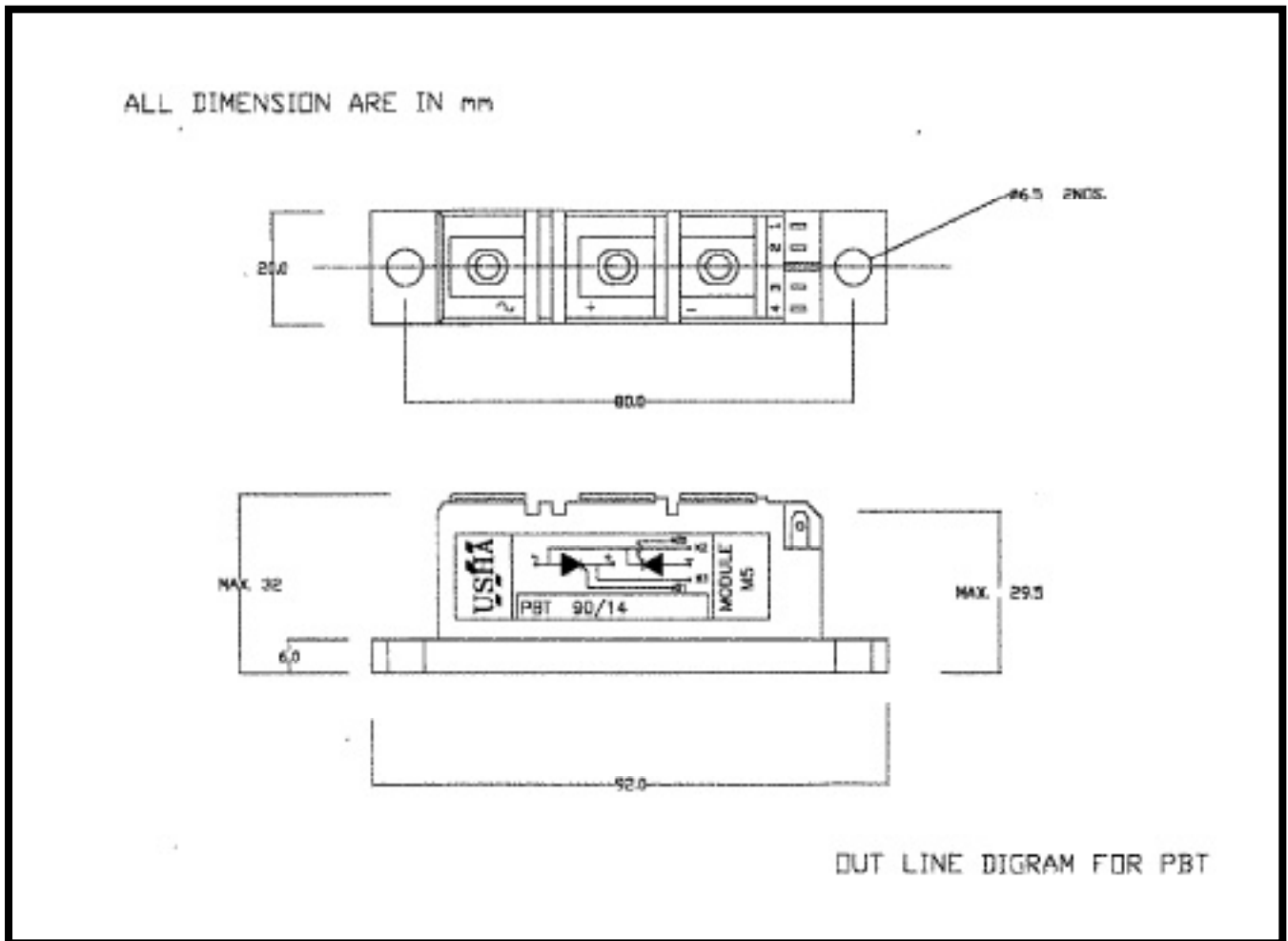
On-state characteristics

\$\$ NOTE : If this test is repeated by the user either as a goods inwards check or as a test of the final equipment, in accordance with IEC Publication 146 (1973), clause 492.1, only a voltage slowly increasing up to 3000V a.c. should be used.



Gate trigger characteristics

MECHANICAL DETAILS



ALL DIMENSIONS IN MM
MOUNTING TORQUE CASE TO HEAT SINK = 5 N.M.
MOUNTING TORQUE BUSBARS TO TERMINALS = 3N.M.

MOUNTING INSTRUCTIONS

- GREASE THE BASE PLATE WITH HEAT SINK COMPOUND BEFORE USE.
- MOUNTING TORQUE NOT TO EXCEED 4Nm FOR BOTH THE BOLTS.
- USE ONLY M5 SCREWS.