

# Thyristors

## T300



### Technical Data

Typical applications : D.C. Motor control, Controlled rectifiers, A.C. Controllers

| Type No. | $V_{RRM}$<br>(Volts) | $V_{RSM}$<br>(Volts) |
|----------|----------------------|----------------------|
| T300/04  | 400                  | 500                  |
| T300/06  | 600                  | 700                  |
| T300/08  | 800                  | 900                  |
| T300/10  | 1000                 | 1100                 |
| T300/12  | 1200                 | 1300                 |
| T300/14  | 1400                 | 1500                 |
| T300/16  | 1600                 | 1700                 |

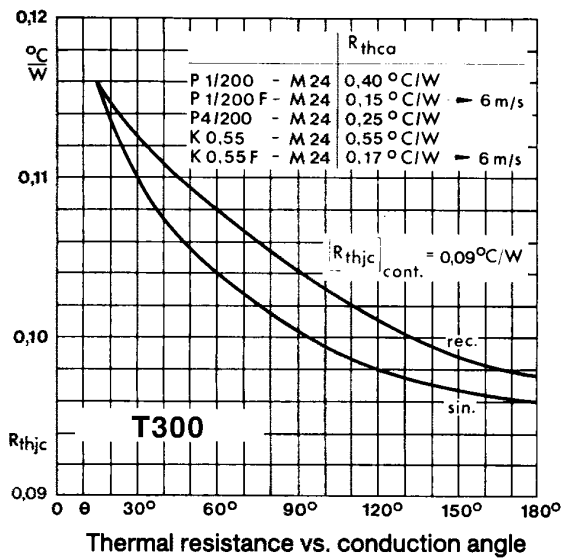
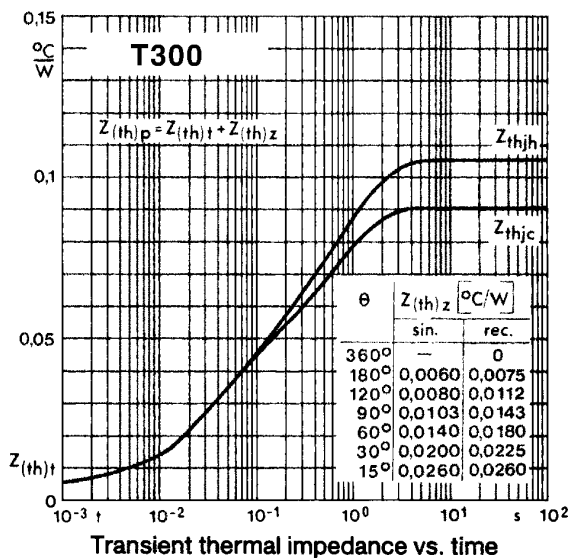
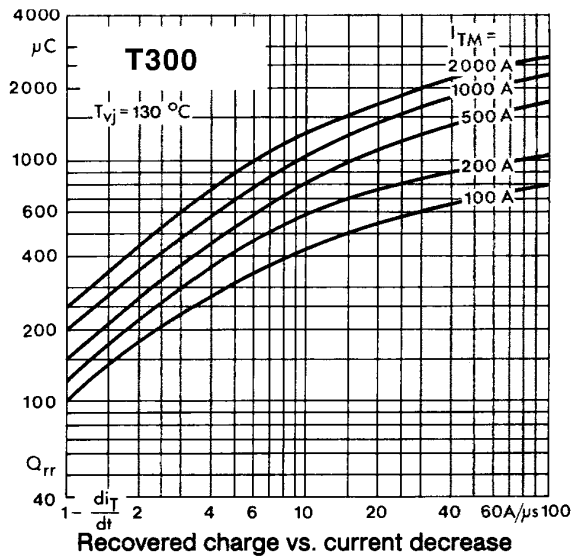
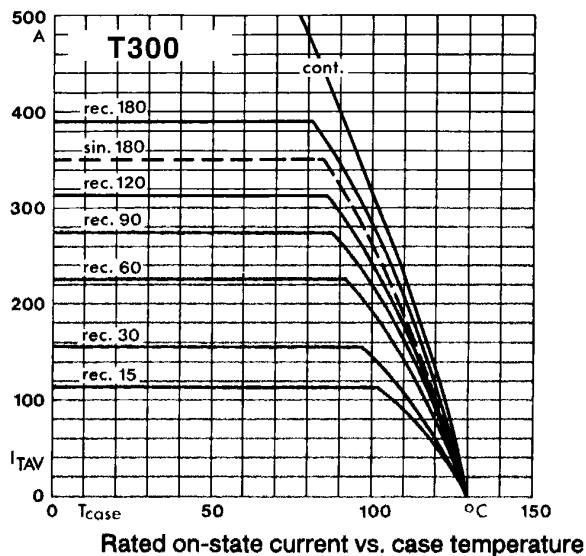
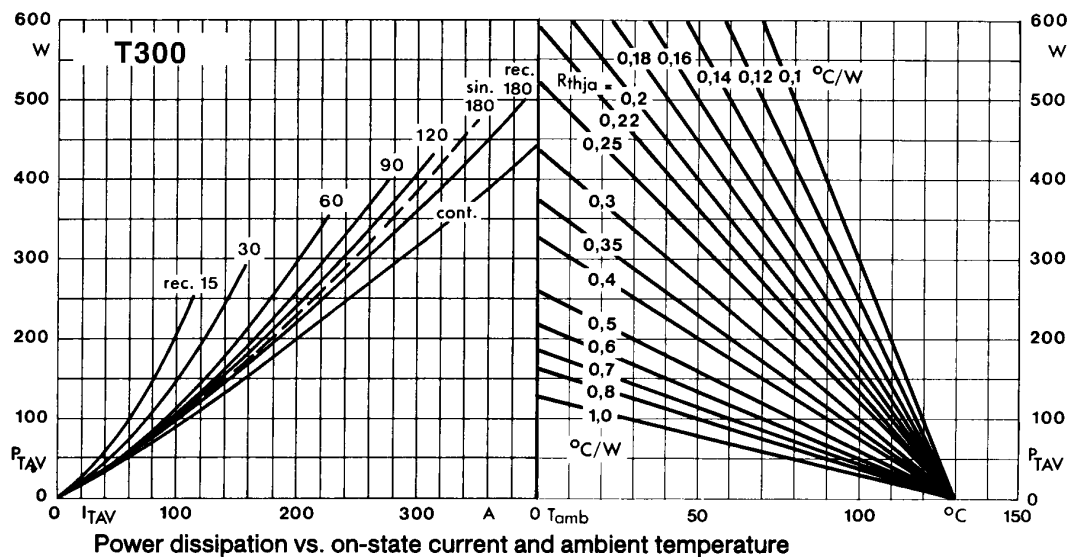
### Features

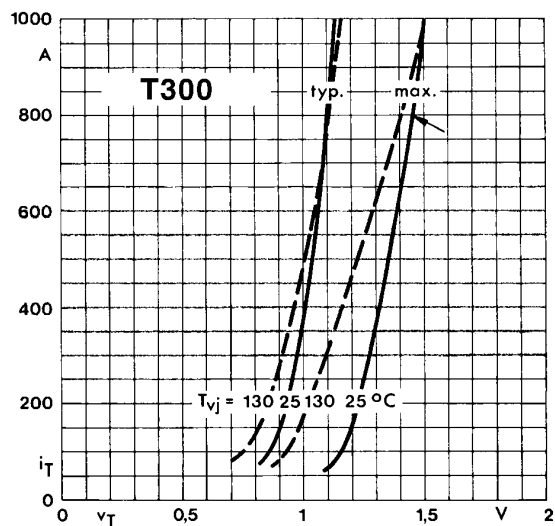
- Hermetic glass to metal seal
- Voltage grade upto 1600V
- Weight 450 gm ( Approx )

| Symbol                                                      | Conditions                                                                                                                               | Values                                                                                                                     |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| $I_{T(AV)}$                                                 | Sin 180 ; $T_{case} = 93^{\circ}C$                                                                                                       | 300 A                                                                                                                      |
| $I_{TSM}$                                                   | $T_{vj} = 25^{\circ}C$<br>$T_{vj} = 130^{\circ}C$                                                                                        | 11000 A<br>10000 A                                                                                                         |
| $I^2t$                                                      | $T_{vj} = 25^{\circ}C$<br>$T_{vj} = 130^{\circ}C$                                                                                        | 600000 A <sup>2</sup> s<br>500000 A <sup>2</sup> s                                                                         |
| $I_{GT}$<br>$V_{GT}$<br>$dv/dt$<br>$[di/dt]_{CR}$           | $T_{vj} = 25^{\circ}C$ ; $V_{DRM} = 5V$<br>$T_{vj} = 25^{\circ}C$ ; $V_{DRM} = 5V$<br>$T_{vj} = 125^{\circ}C$ ; Voltage = 67 % $V_{DRM}$ | 200 mA<br>3 V<br>*200 V/ $\mu$ s<br>100 A/ $\mu$ s                                                                         |
| $V_T$<br>$V_0$<br>$R_0$<br>$I_{RRM}/I_{DRM}$                | $T_{vj} = 25^{\circ}C$ ; $I_T = 800A$<br>$T_{vj} = 130^{\circ}C$<br>$T_{vj} = 130^{\circ}C$<br>$T_{vj} = 130^{\circ}C$                   | 1.45 V max<br>0.90 V<br>0.50 mW<br>50 mA                                                                                   |
| $I_H$<br>$I_L$                                              |                                                                                                                                          | Typ 150 mA; max. 250 mA<br>Typ 300 mA; max. 600 mA                                                                         |
| $R_{th(j-c)}$<br><br>$R_{th(c-h)}$<br>$T_{vj}$<br>$T_{stg}$ | Cont.<br>Sin 180 / rec. 120                                                                                                              | 0.09 $^{\circ}C/W$<br>0.096 / 0.101 $^{\circ}C/W$<br>0.015 $^{\circ}C/W$<br>+ 130 $^{\circ}C$<br>-40.....+ 150 $^{\circ}C$ |
| Mounting torque                                             |                                                                                                                                          | 50 Nm / 12.5 Nm per Bolt                                                                                                   |
| Case outline                                                |                                                                                                                                          | Z / W                                                                                                                      |

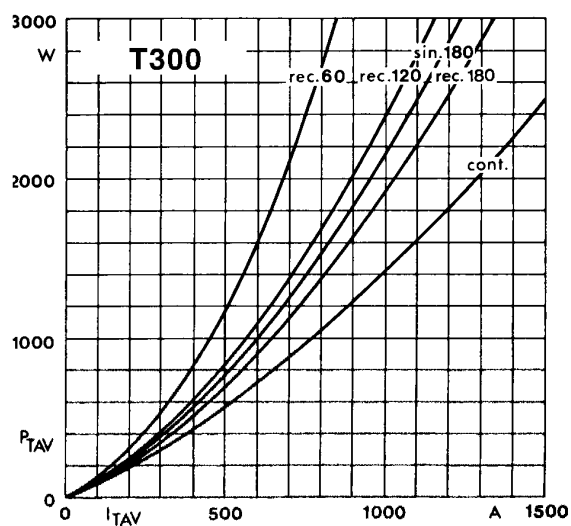
\* Higher dv/dt selection available on request



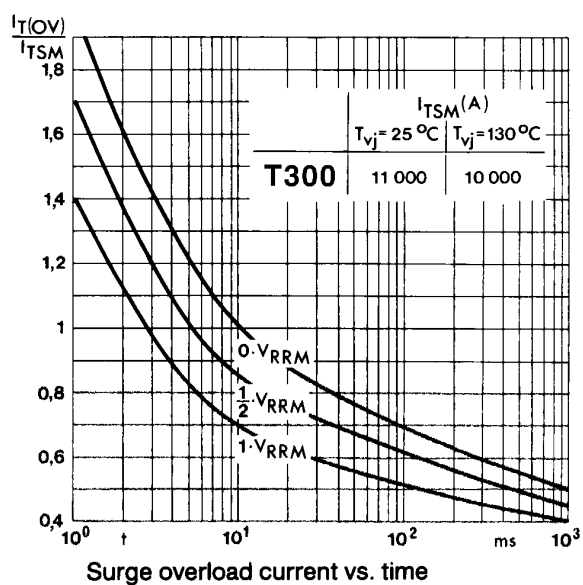




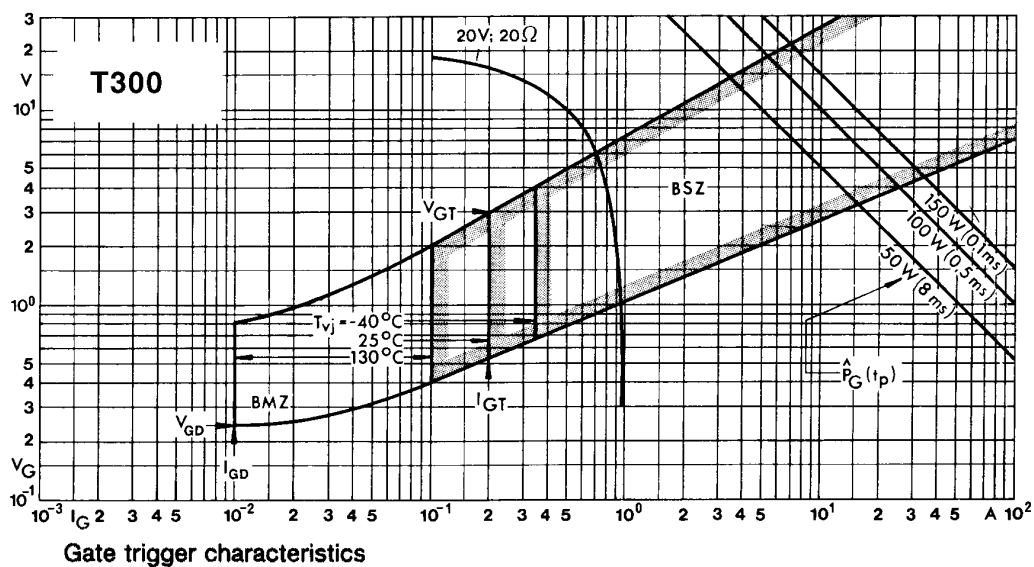
On-state characteristics



Power dissipation vs. on-state current



Surge overload current vs. time

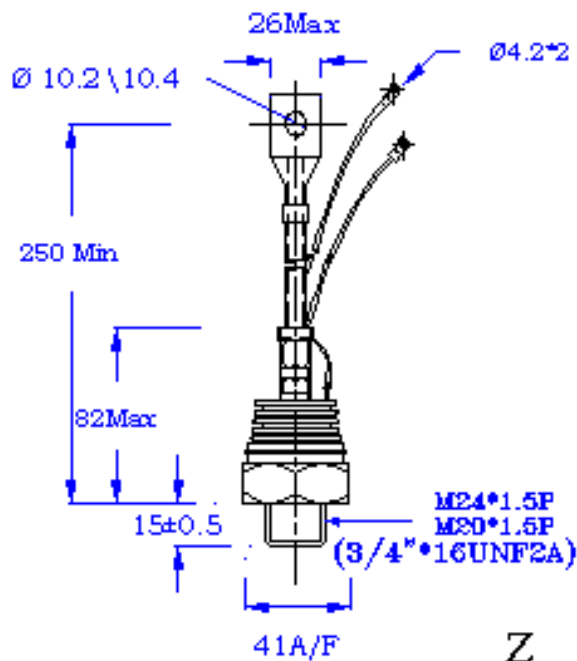


Gate trigger characteristics

## PACAKAGE DEATILS

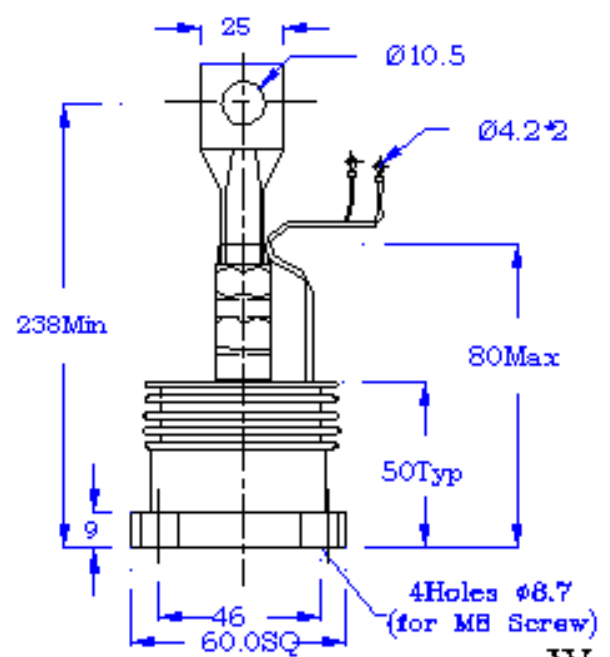
DO NOT SCALE

All Dimensions in mm



Mounting Torque 60NM

Z



Mounting Torque 15NM/Bolt<sup>W</sup>

W