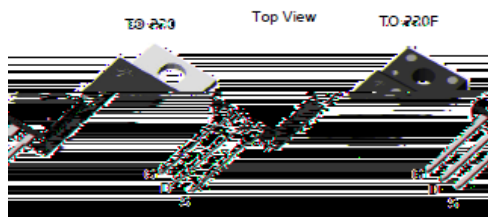


N-channel MOSFET

Features

- Low gate charge
- 100% avalanche tested
- Improved dv/dt capability
- RoHS compliant
- Halogen free package
- JEDEC Qualification

| | | |
|------------|-------|---------------|
| BV_{DSS} | I_D | $R_{DS(on)}$ |
| 500V | 4.5A | <1.5 Ω |



| Device | Package | Marking | Remark |
|----------------------|------------------|---------------------|--------------|
| TMP830Z / TMPF830Z | TO-220 / TO-220F | TMP830Z/ TMPF830Z | RoHS |
| TMP830ZG / TMPF830ZG | TO-220 / TO-220F | TMP830ZG/ TMPF830ZG | Halogen Free |

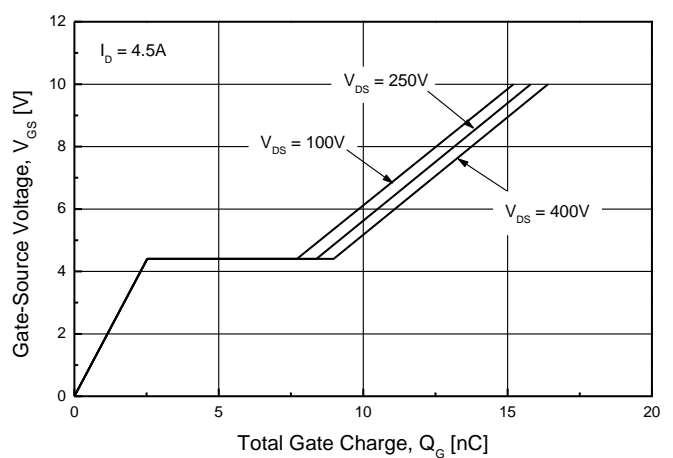
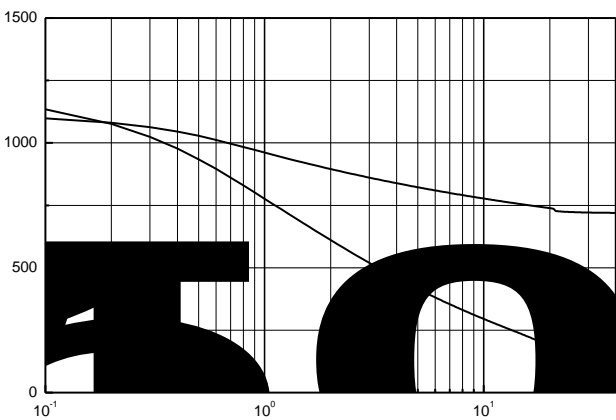
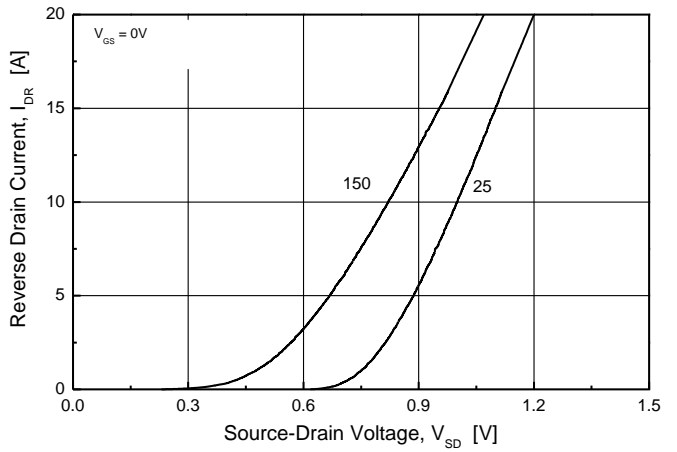
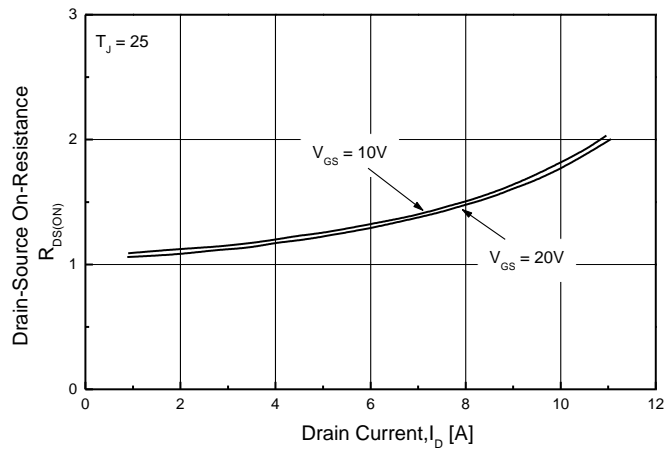
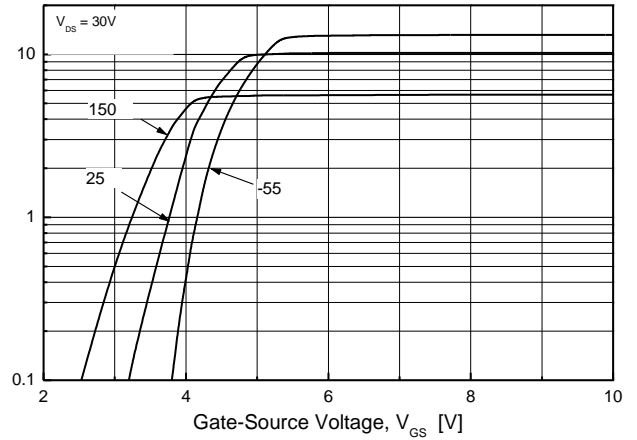
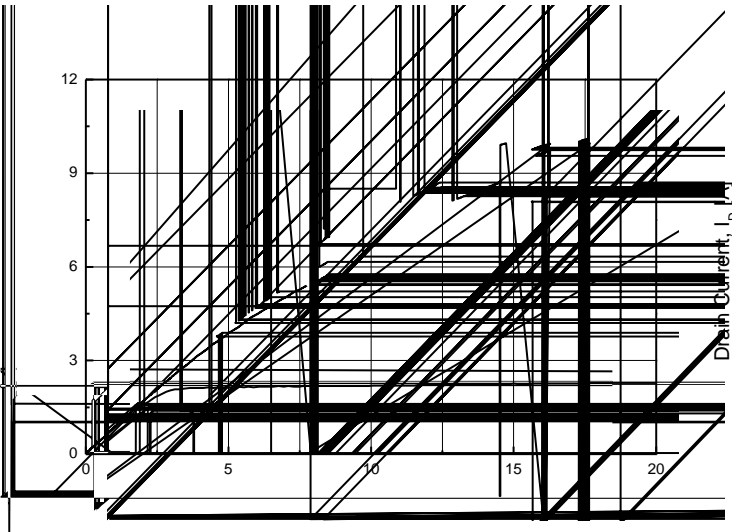
Absolute Maximum Ratings

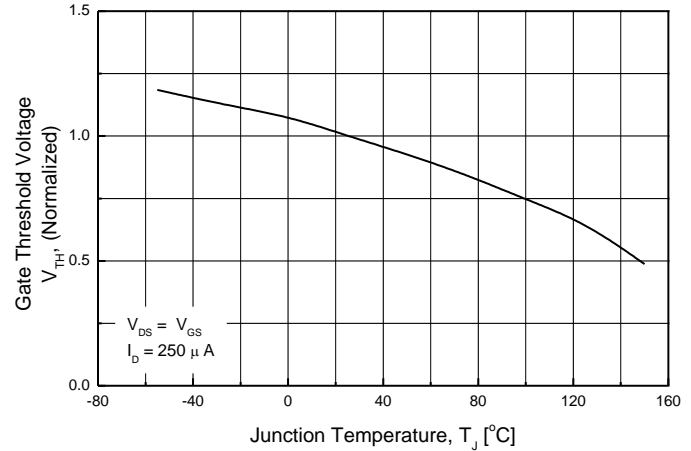
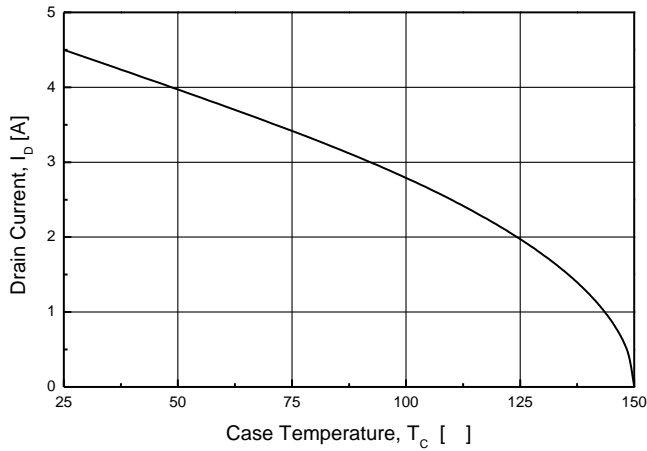
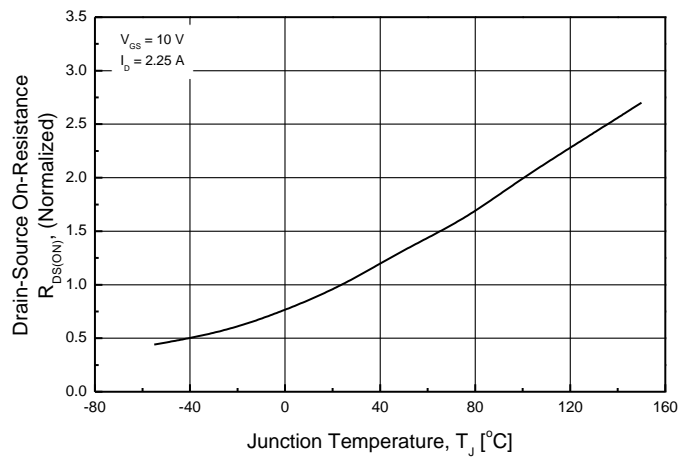
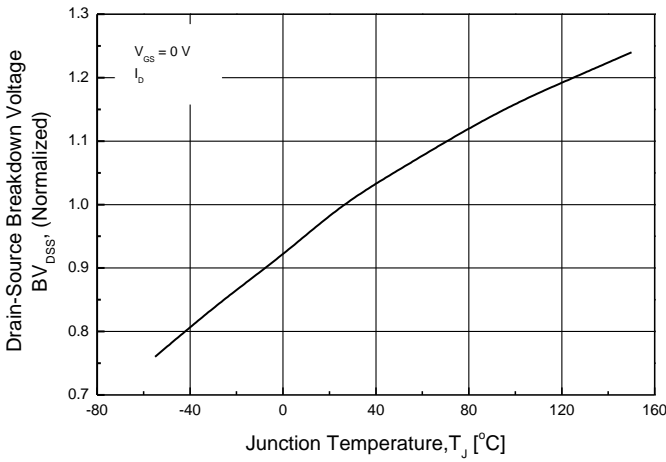
| Parameter | Symbol | TMP830Z(G) | TMPF830Z(G) | Unit | |
|--|----------------|-----------------|-------------|-------|----|
| Drain-Source Voltage | V_{DSS} | 500 | | V | |
| Gate-Source Voltage | V_{GS} | 30 | | V | |
| Continuous Drain Current | I_D | $T_C = 25$ | 4.5 | 4.5 * | A |
| | | $T_C = 100$ | 3.1 | 3.1 | A |
| Pulsed Drain Current (Note 1) | I_{DM} | 18 | 18 | A | |
| Single Pulse Avalanche Energy (Note 2) | E_{AS} | 282 | | mJ | |
| Repetitive Avalanche Current (Note 1) | I_{AR} | 4.5 | | A | |
| Repetitive Avalanche Energy (Note 1) | E_{AR} | 9.84 | | mJ | |
| Power Dissipation | P_D | $T_C = 25$ | 98.4 | 32.9 | W |
| | | Derate above 25 | 0.78 | 0.26 | W/ |
| Peak Diode Recovery dv/dt (Note 3) | dv/dt | 4.5 | | V/ns | |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55~150 | | | |
| Maximum lead temperature for soldering purposes, | T_L | 300 | | | |

* Limited only by maximum junction temperature

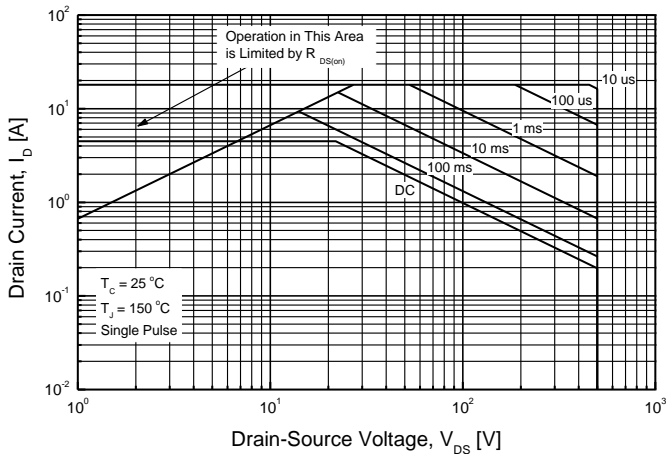
Thermal Characteristics

| Parameter | Symbol | TMP830Z(G) | TMPF830Z(G) | Unit |
|---|-----------------|------------|-------------|------|
| Maximum Thermal resistance, Junction-to-Case | $R_{\theta JC}$ | 1.27 | 3.8 | /W |
| Maximum Thermal resistance, Junction-to-Ambient | $R_{\theta JA}$ | 62.5 | 62.5 | /W |

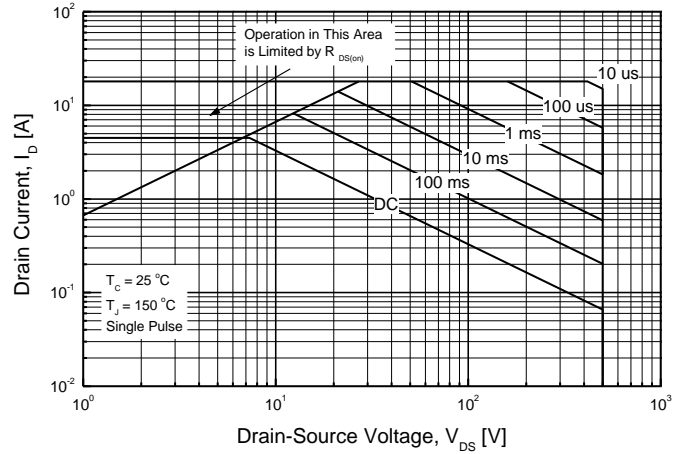




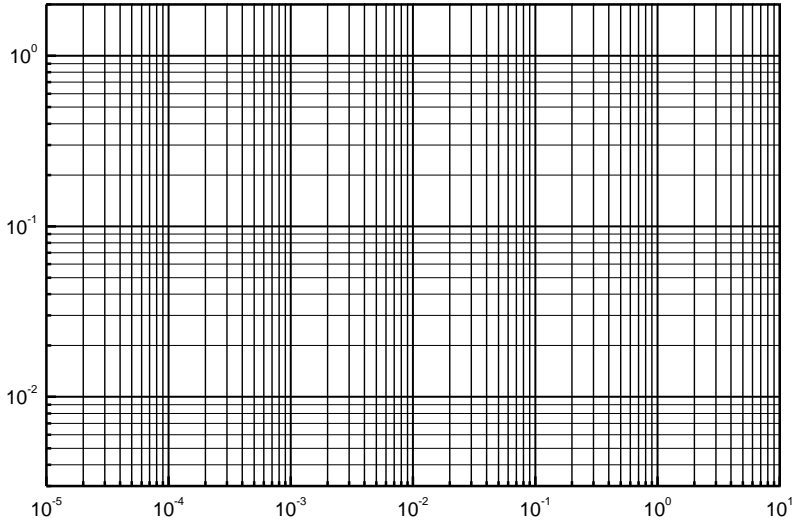
TMP830Z(G)



TMPF830Z(G)



TMP830Z(G)



TMPF830Z(G)

