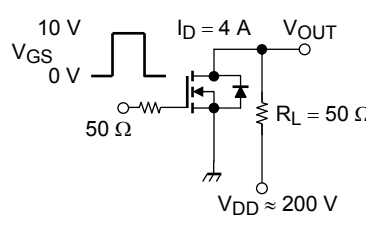


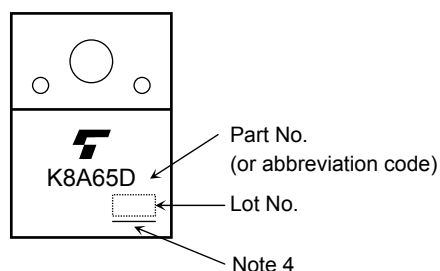
Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------|---------------|------------------------------------------------------------------------------------|-----|------|---------|---------------|
| Gate leakage current | I_{GSS} | $V_{GS} = \pm 30 \text{ V}, V_{DS} = 0 \text{ V}$ | — | — | ± 1 | μA |
| Drain cut-off current | I_{DSS} | $V_{DS} = 650 \text{ V}, V_{GS} = 0 \text{ V}$ | — | — | 10 | μA |
| Drain-source breakdown voltage | $V_{(BR)DSS}$ | $I_D = 10 \text{ mA}, V_{GS} = 0 \text{ V}$ | 650 | — | — | V |
| Gate threshold voltage | V_{th} | $V_{DS} = 10 \text{ V}, I_D = 1 \text{ mA}$ | 2.0 | — | 4.0 | V |
| Drain-source ON-resistance | $R_{DS(ON)}$ | $V_{GS} = 10 \text{ V}, I_D = 4 \text{ A}$ | — | 0.7 | 0.84 | Ω |
| Forward transfer admittance | $ Y_{fs} $ | $V_{DS} = 10 \text{ V}, I_D = 4 \text{ A}$ | 1.3 | 4.5 | — | S |
| Input capacitance | C_{iss} | $V_{DS} = 25 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ MHz}$ | — | 1350 | — | pF |
| Reverse transfer capacitance | C_{rss} | | — | 6 | — | |
| Output capacitance | C_{oss} | | — | 135 | — | |
| Switching time | Rise time |  | — | 22 | — | ns |
| | Turn-on time | | — | 55 | — | |
| | Fall time | | — | 15 | — | |
| | Turn-off time | | — | 100 | — | |
| Total gate charge | Q_g | $V_{DD} \approx 400 \text{ V}, V_{GS} = 10 \text{ V}, I_D = 8 \text{ A}$ | — | 25 | — | nC |
| Gate-source charge | Q_{gs} | | — | 16 | — | |
| Gate-drain charge | Q_{gd} | | — | 9 | — | |

Source-Drain Ratings and Characteristics (Ta = 25°C)

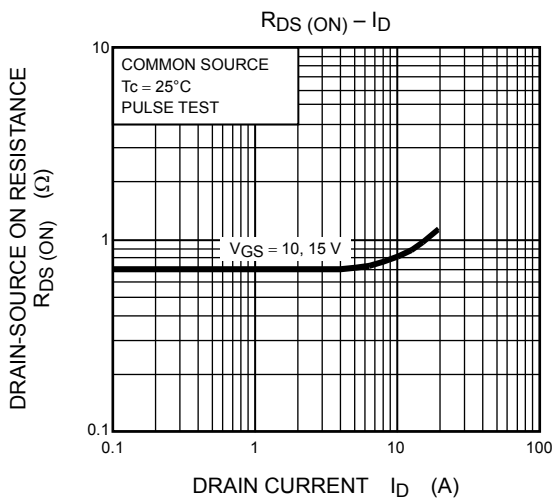
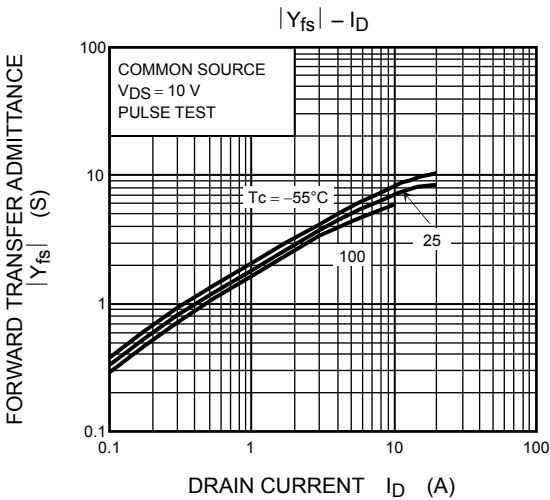
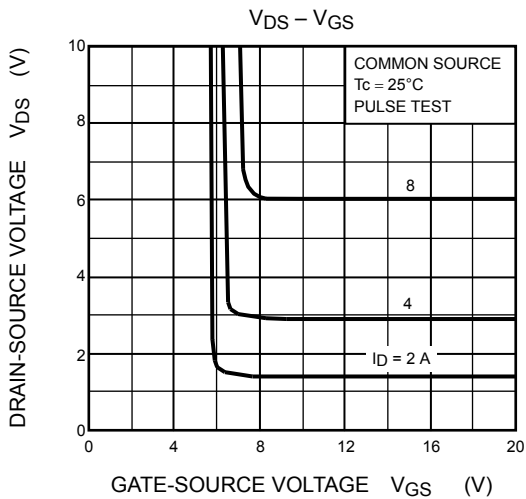
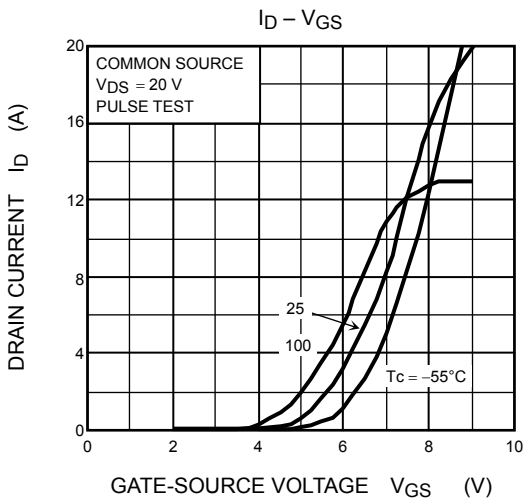
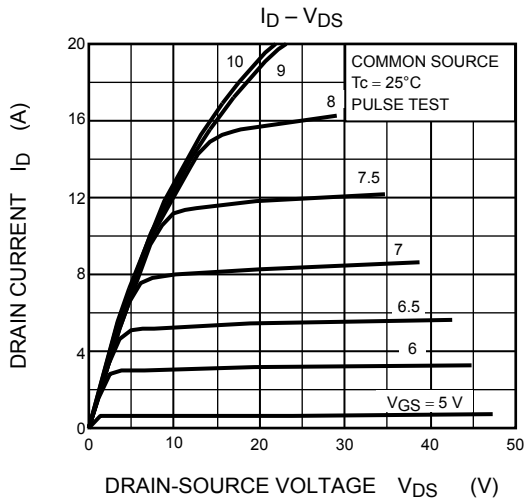
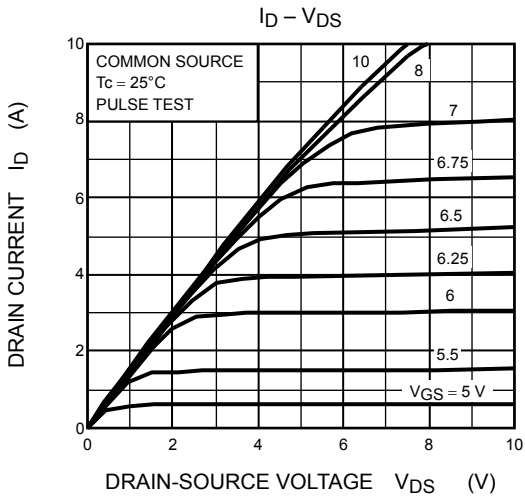
| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|----------------------------------------------|-----------|-----------------------------------------------|-----|------|------|---------------|
| Continuous drain reverse current (Note 1) | I_{DR} | — | — | — | 8 | A |
| Pulse drain reverse current (Note 1) | I_{DRP} | — | — | — | 32 | A |
| Forward voltage (diode) | V_{DSF} | $I_{DR} = 8 \text{ A}, V_{GS} = 0 \text{ V}$ | — | — | -1.7 | V |
| Reverse recovery time | t_{rr} | $I_{DR} = 8 \text{ A}, V_{GS} = 0 \text{ V},$ | — | 1300 | — | ns |
| Reverse recovery charge | Q_{rr} | $dI_{DR}/dt = 100 \text{ A}/\mu\text{s}$ | — | 12 | — | μC |

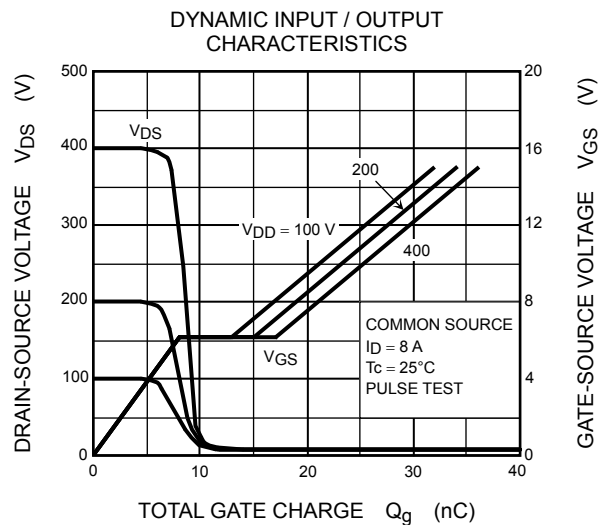
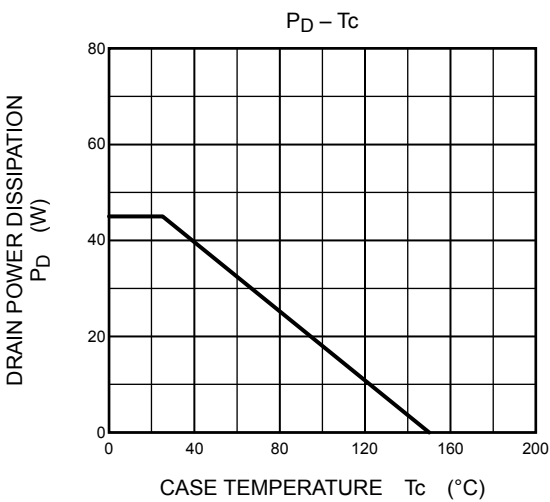
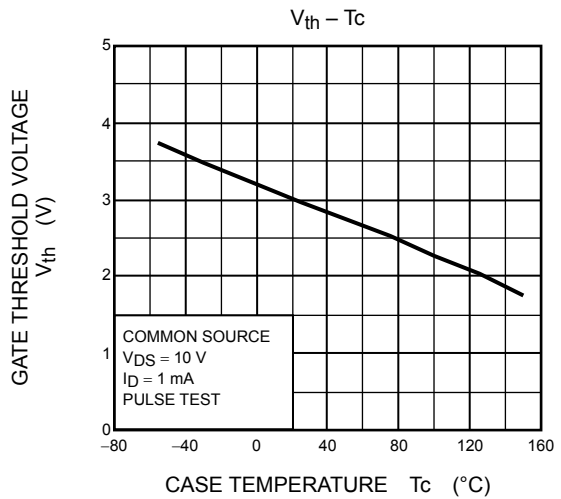
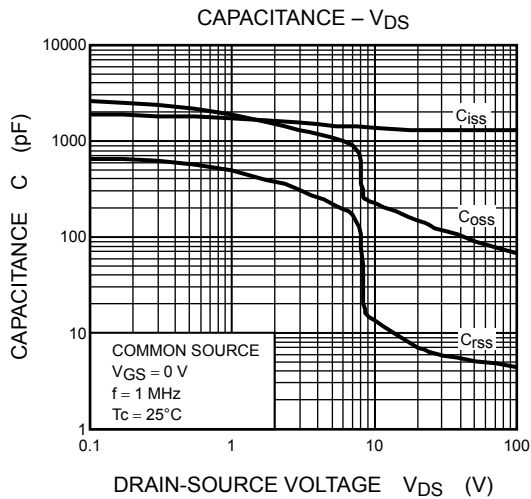
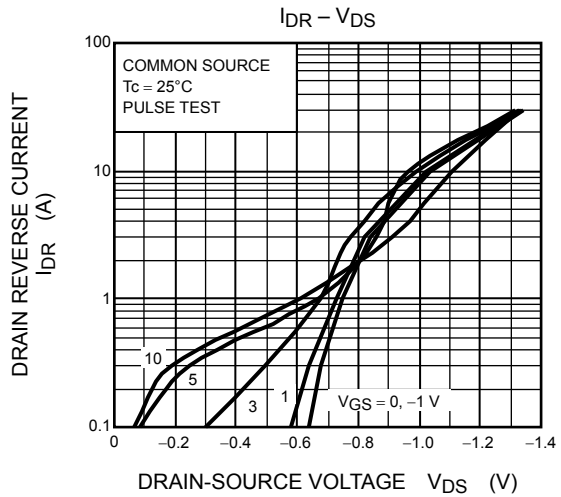
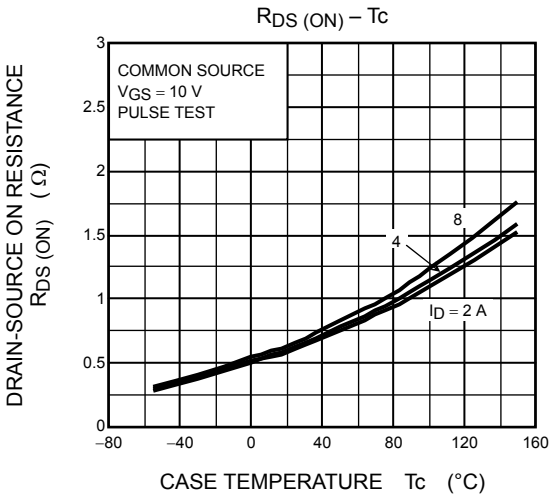
Marking

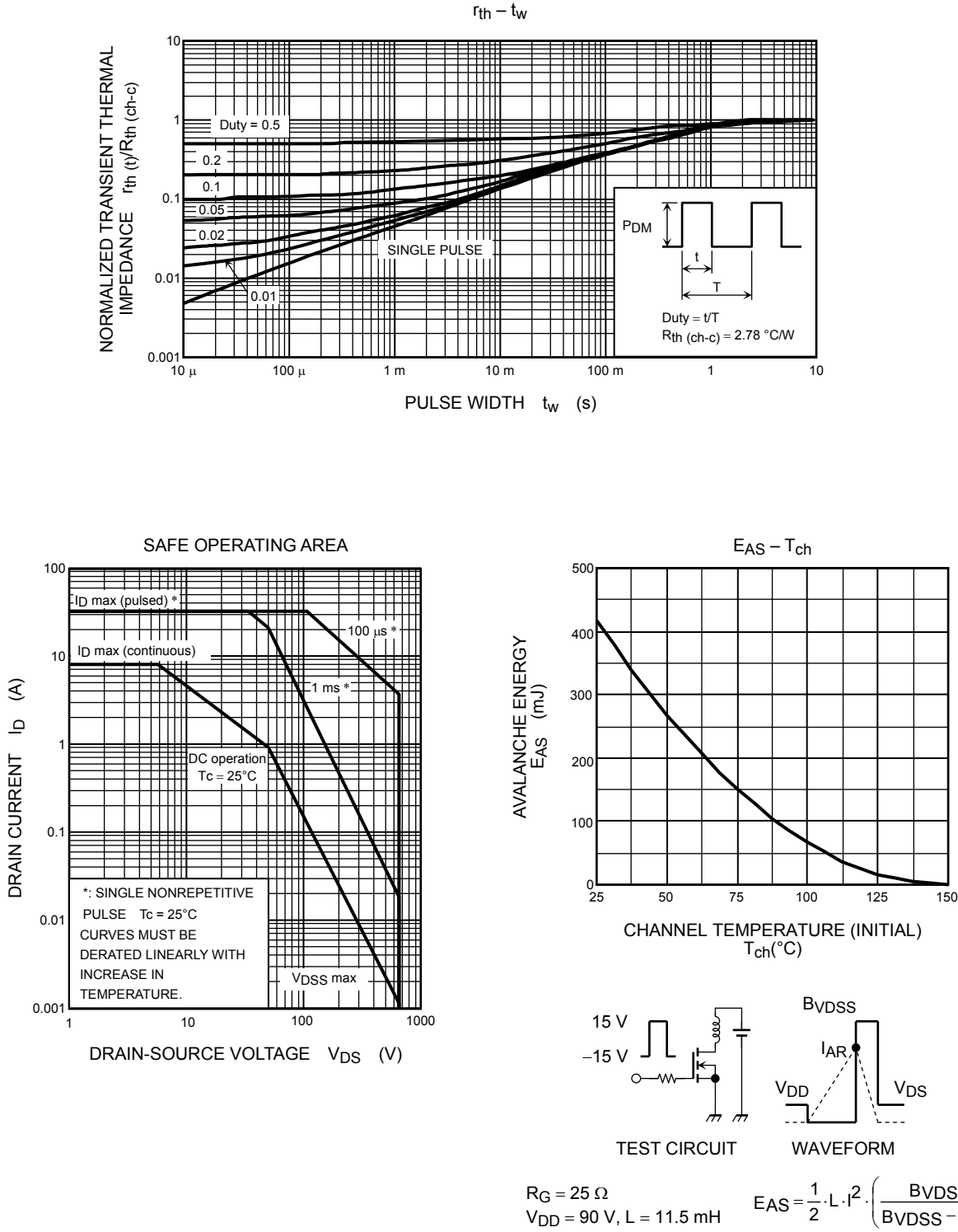


Note 4 : A line under a Lot No. identifies the indication of product Labels
[[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]

Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product. The RoHS is Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment







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