

2SK2848

External dimensions 1 FM20

Absolute Maximum Ratings (Ta = 25°C)

| Symbol | Ratings | Unit |
|---------------------------|----------------------------|------|
| V _{DSS} | 600 | V |
| V _{GSS} | ±30 | V |
| I _D | ±2 | A |
| I _D (pulse) *1 | ±8 | A |
| P _D | 30 (T _C = 25°C) | W |
| E _{AS} *2 | 10 | mJ |
| I _{AS} | 2 | A |
| T _{ch} | 150 | °C |
| T _{stg} | -55 to +150 | °C |

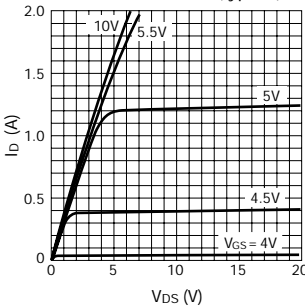
*1: P_w ≤ 100μs, duty cycle ≤ 1%

*2: V_{DD} = 30V, L = 5mH, I_L = 2.0A, unclamped, R_G = 50Ω, See Figure 1 on Page 5.

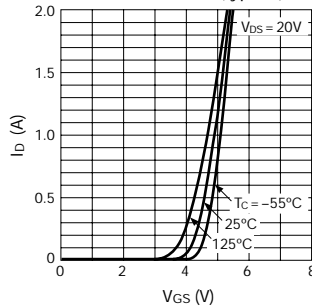
Electrical Characteristics (Ta = 25°C)

| Symbol | Ratings | | | Unit | Conditions |
|-----------------------|---------|-----|------|------|--|
| | min | typ | max | | |
| V _{(BR) DSS} | 600 | | | V | I _D = 100μA, V _{GS} = 0V |
| I _{GSS} | | | ±100 | nA | V _{GS} = ±30V |
| I _{DSS} | | | 100 | μA | V _{DS} = 600V, V _{GS} = 0V |
| V _{TH} | 2.0 | 3.0 | 4.0 | V | V _{DS} = 10V, I _D = 250μA |
| Re (yfs) | 1.2 | 1.7 | | S | V _{DS} = 20V, I _D = 1A |
| R _{DS(on)} | | 3.0 | 3.8 | Ω | V _{GS} = 10V, I _D = 1A |
| C _{iss} | | 290 | | pF | V _{DS} = 10V, f = 1.0MHz, V _{GS} = 0V |
| C _{oss} | | 70 | | pF | |
| C _{rss} | | 30 | | pF | |
| t _{d(on)} | | 16 | | ns | I _D = 1A, V _{DD} = 250V, R _L = 250Ω, V _{GS} = 10V, See Figure 2 on Page 5. |
| t _r | | 30 | | ns | |
| t _{d(off)} | | 45 | | ns | |
| t _f | | 145 | | ns | |
| V _{SD} | | 0.9 | 1.4 | V | I _{SD} = 2.0A, V _{GS} = 0V |

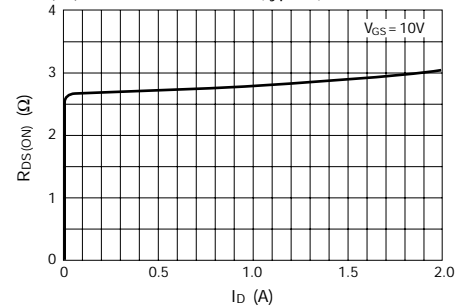
I_D - V_{DS} Characteristics (typical)



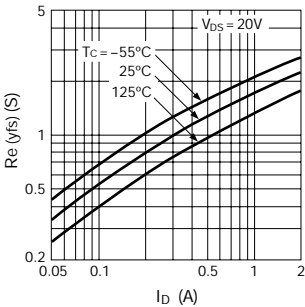
I_D - V_{GS} Characteristics (typical)



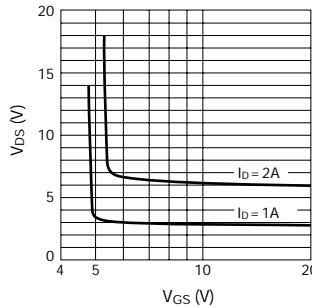
R_{DS(on)} - I_D Characteristics (typical)



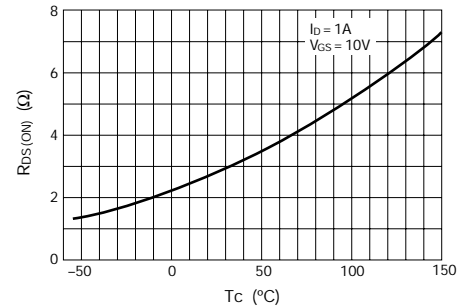
Re (yfs) - I_D Characteristics (typical)



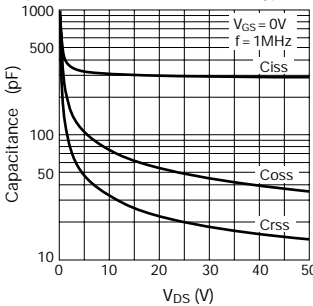
V_{DS} - V_{GS} Characteristics (typical)



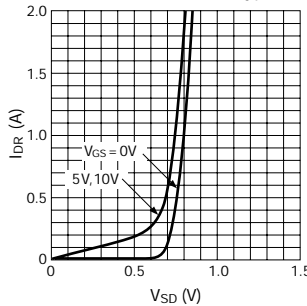
R_{DS(on)} - T_C Characteristics (typical)



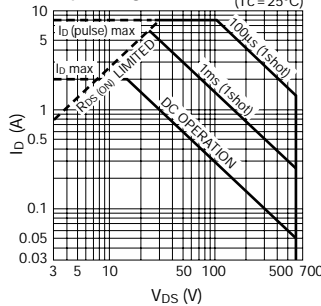
Capacitance - V_{DS} Characteristics (typical)



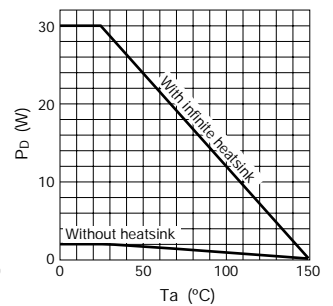
I_{DR} - V_{SD} Characteristics (typical)



Safe Operating Area (T_C = 25°C)



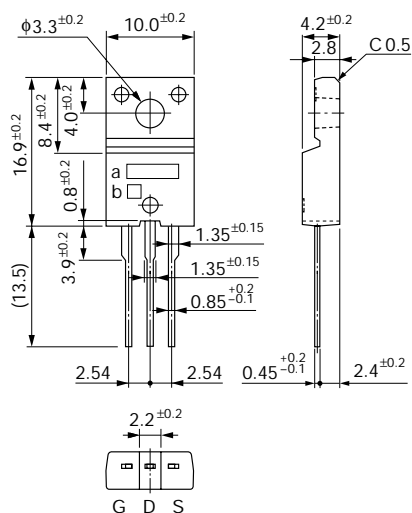
P_D - T_a Characteristics



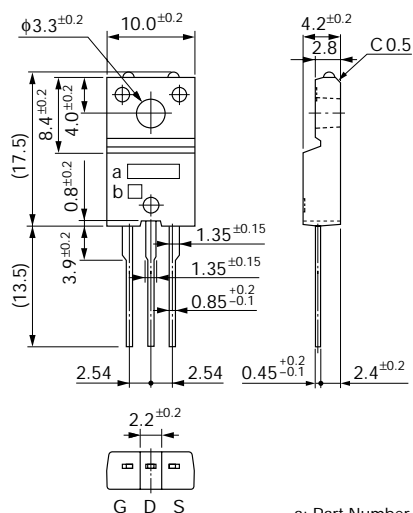
External dimensions (Unit: mm)

① FM20 (TO-220F)

General product



UL approved product

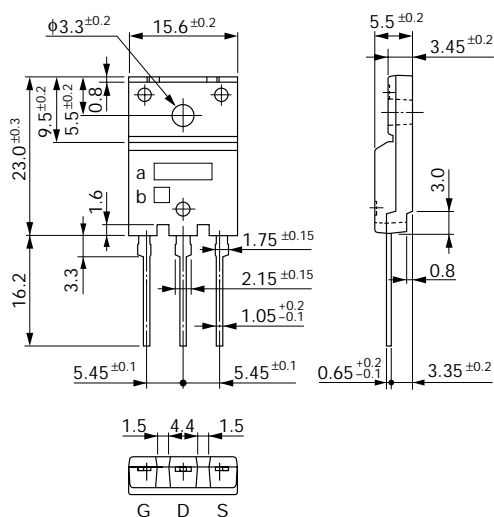


a: Part Number
b: Lot Number

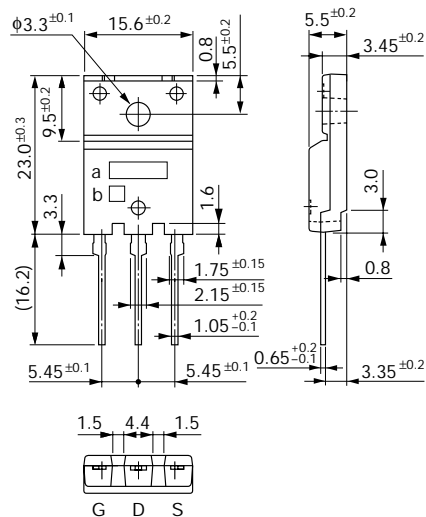
Weight: Approx 2.0g

② FM100 (TO-3PF)

General product



UL approved product



a: Part Number
b: Lot Number

Weight: Approx 6.5g