2SK2803

External dimensions 1 ..... FM20

Absolute Maximum Ratings (Ta = 25ºC)

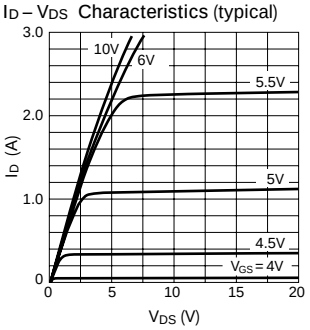
Symbol	Ratings	Unit
V_{DSS}	450	V
V_{GSS}	±30	V
I_D	±3	A
$I_{D\ (pulse)}$ *1	±12	A
P_D	30 (Tc = 25ºC)	W
E_{AS} *2	30	mJ
I_{AS}	3	A
Tch	150	ºC
Tstg	–55 to +150	ºC

*1: $P_W \leqq 100\mu s$, duty cycle ≦ 1%
*2: V_{DD} = 30V, L = 6.3mH, I_L = 3.0A, unclamped, $R_G = 50\Omega$, See Figure 1 on Page 5.

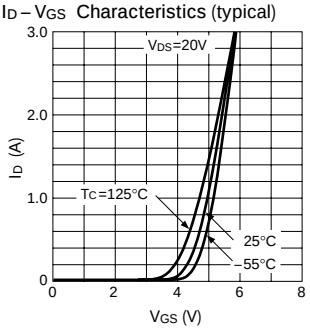
Electrical Characteristics (Ta = 25ºC)

Symbol	Ratings min	Ratings typ	Ratings max	Unit	Conditions
$V_{(BR)\ DSS}$	450			V	I_D = 100µA, V_{GS} = 0V
I_{GSS}			±100	nA	V_{GS} = ±30V
I_{DSS}			100	µA	V_{DS} = 450V, V_{GS} = 0V
V_{TH}	2.0		4.0	V	V_{DS} = 10V, I_D = 1mA
$Re_{(yfs)}$	1.5	2.1		S	V_{DS} = 20V, I_D = 1.5A
$R_{DS\ (on)}$		2.1	2.8	Ω	V_{GS} = 10V, I_D = 1.5A
Ciss		340		pF	V_{DS} = 10V, f = 1.0MHz, V_{GS} = 0V
Coss		75		pF	
Crss		26		pF	
$t_{d\ (on)}$		18		ns	I_D = 1.5A, $V_{DD} \fallingdotseq$ 200V, $R_L = 133\Omega$, V_{GS} = 10V, See Figure 2 on Page 5.
t_r		30		ns	
$t_{d\ (off)}$		45		ns	
t_f		85		ns	
V_{SD}		0.9	1.4	V	I_{SD} = 3A, V_{GS} = 0V

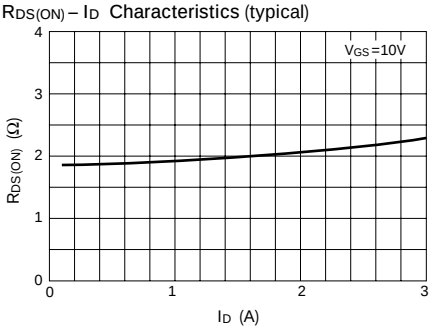
I_D – V_{DS} Characteristics (typical)



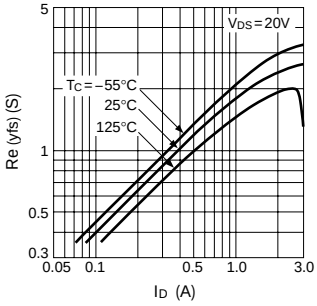
I_D – V_{GS} Characteristics (typical)



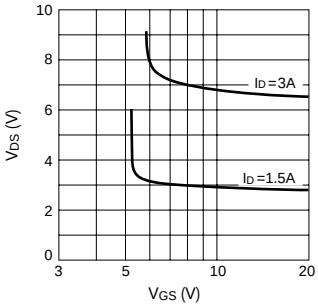
$R_{DS(ON)}$ – I_D Characteristics (typical)



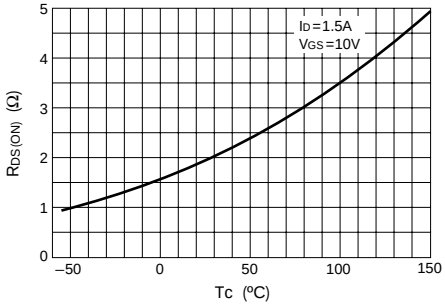
$Re_{(yfs)}$ – I_D Characteristics (typical)



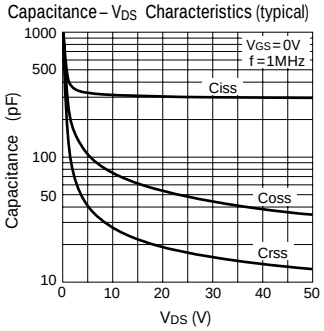
V_{DS} – V_{GS} Characteristics (typical)



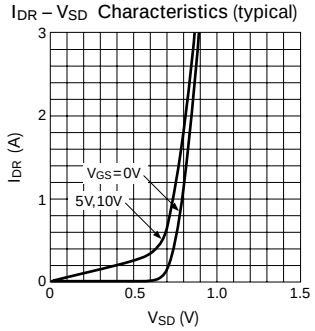
$R_{DS(ON)}$ – T_C Characteristics (typical)



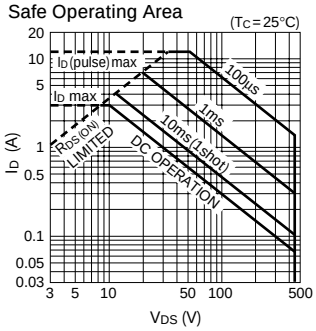
Capacitance – V_{DS} Characteristics (typical)



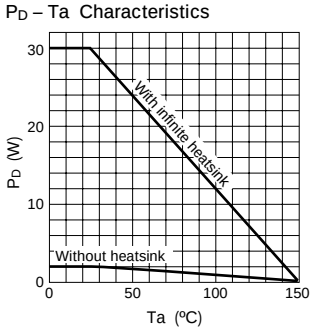
I_{DR} – V_{SD} Characteristics (typical)



Safe Operating Area (Tc = 25°C)



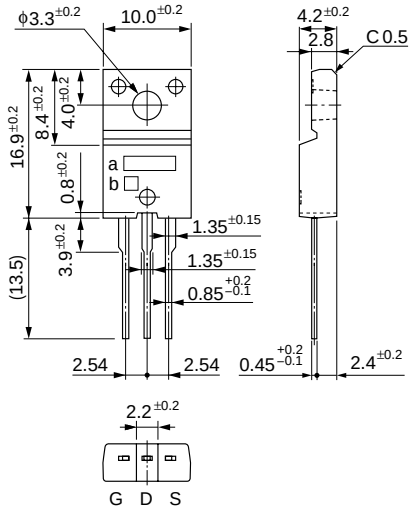
P_D – Ta Characteristics



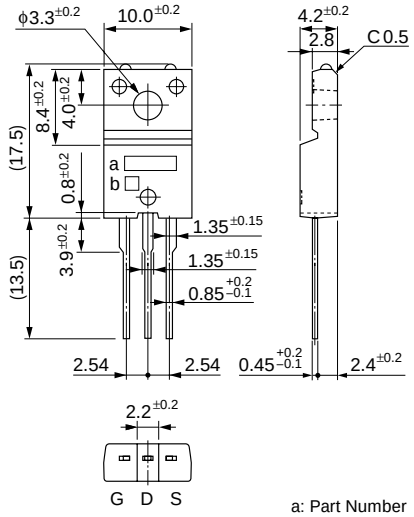
External dimensions (Unit: mm)

❶ FM20 (TO-220F)

General product



UL approved product

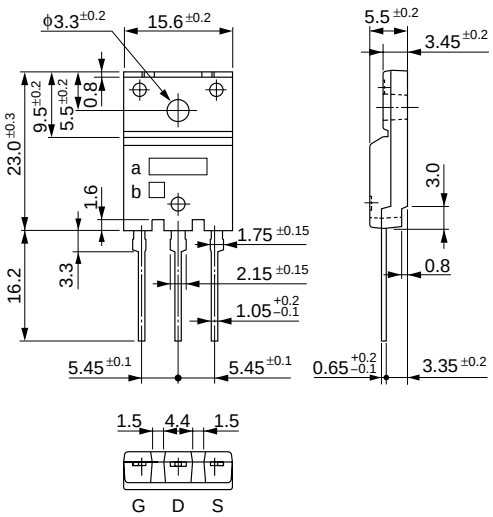


a: Part Number
b: Lot Number

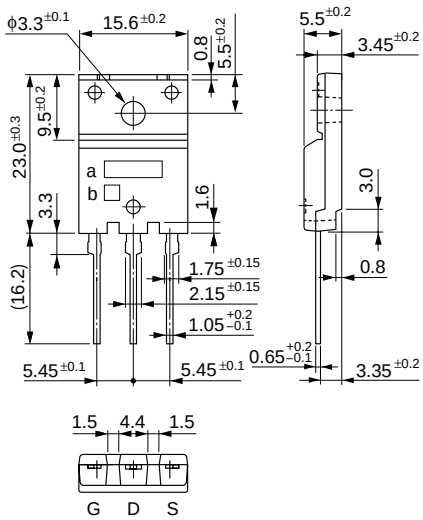
Weight: Approx 2.0g

❷ FM100 (TO-3PF)

General product



UL approved product



a: Part Number
b: Lot Number

Weight: Approx 6.5g