

MOS FET 2SK2701

Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{DSS}	450	V
V _{GSS}	±30	V
I _D	±7	A
I _D (pulse)*1	±28	A
P _T	35 (Tc=25°C)	W
E _{AS} *2	130	mJ
I _{AS}	7	A
T _{ch}	150	°C
T _{stg}	-55 to +150	°C

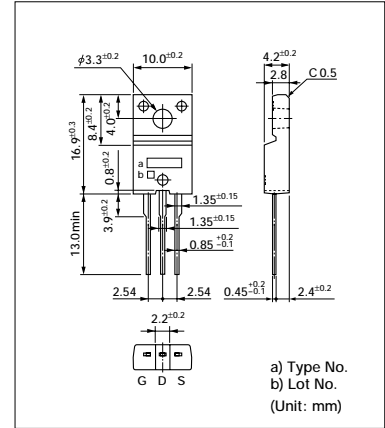
*1 P_W ≤ 100μs, duty ≤ 1%

*2 V_{DD} = 30V, L = 5mH, I_L = 7A, unclamped, R_G = 50Ω

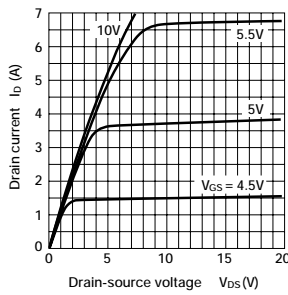
Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings			Unit
		min	typ	max	
V _{(BR) DSS}	I _D = 100μA, V _{GS} = 0V	450			V
I _{GSS}	V _{GS} = ±30V		±100		nA
I _{DSS}	V _{DS} = 450V, V _{GS} = 0V		100		μA
V _{TH}	V _{DS} = 10V, I _D = 1mA	2.0	3.0	4.0	V
Re (yfs)	V _{DS} = 20V, I _D = 3.5A	3.5	5		S
R _{DS (ON)}	V _{DS} = 10V, I _D = 3.5A		0.84	1.10	Ω
C _{iss}	V _{DS} = 10V f = 1.0MHz		720		pF
C _{oss}	V _{GS} = 0V		150		pF
C _{rss}	V _{GS} = 0V		65		pF
t _{d (on)}	I _D = 3.5A		25		ns
t _r	V _{DD} = 200V		40		ns
t _{d (off)}	R _L = 57Ω		70		ns
t _f	V _{GS} = 10V		50		ns
V _{SD}	I _{SD} = 7A, V _{GS} = 0V		1.0	1.5	V

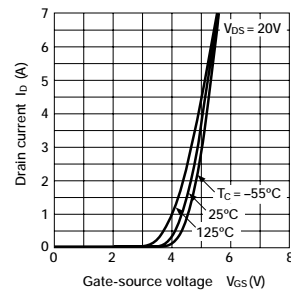
External Dimensions FM20 (full-mold)



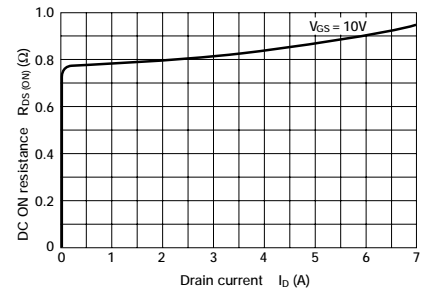
I_D — V_{DS} Characteristics



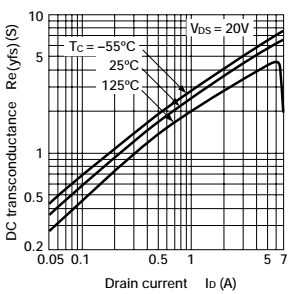
I_D — V_{GS} Characteristics



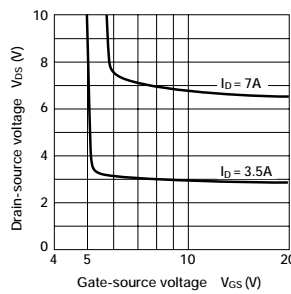
R_{DS (ON)} — I_D Characteristics



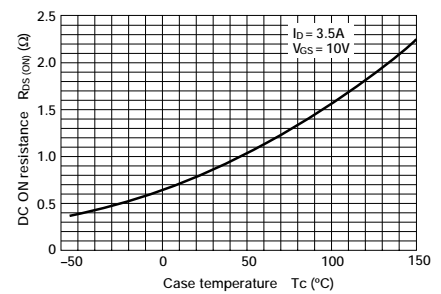
Re (yfs) — I_D Characteristics



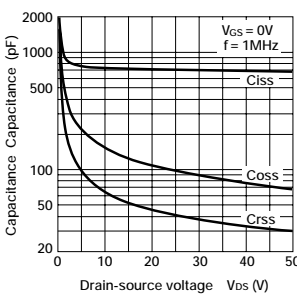
V_{DS} — V_{GS} Characteristics



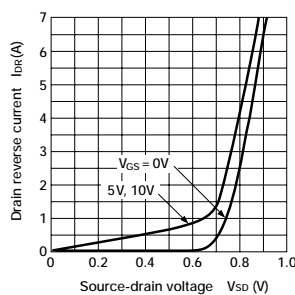
R_{DS (ON)} — T_C Characteristics



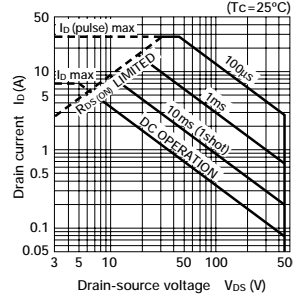
Capacitance — V_{DS} Characteristics



I_{DR} — V_{SD} Characteristics



Safe Operating Area (single pulse)



P_D — T_a Derating

