

2SK2421

External dimensions 1 FM20

Absolute Maximum Ratings (Ta = 25°C)

Symbol	Ratings	Unit
V _{DSS}	60	V
V _{GSS}	±20	V
I _D	±40	A
I _D (pulse) *1	±160	A
P _D	40 (T _c = 25°C)	W
E _{AS} *2	60	mJ
I _{AS}	40	A
T _{ch}	150	°C
T _{stg}	-55 to +150	°C

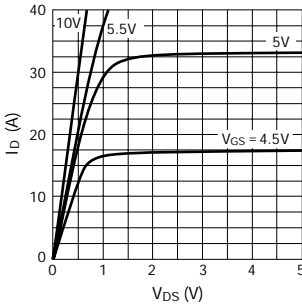
* 1: P_w ≤ 100μs, duty cycle ≤ 1%

* 2: V_{DD} = 20V, L = 50μH, I_L = 40A, unclamped, R_G = 50Ω, See Figure 1 on Page 5.

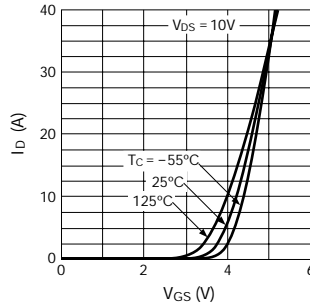
Electrical Characteristics (Ta = 25°C)

Symbol	Ratings			Unit	Conditions
	min	typ	max		
V _{(BR) DSS}	60			V	I _D = 100μA, V _{GS} = 0V
I _{GSS}			±100	nA	V _{GS} = ±20V
I _{DSS}			100	μA	V _{DS} = 60V, V _{GS} = 0V
V _{TH}	2.0		4.0	V	V _{DS} = 10V, I _D = 1mA
Re (yfs)	18	25		S	V _{DS} = 10V, I _D = 20A
R _{DS(on)}		17.5	20	mΩ	V _{GS} = 10V, I _D = 20A
C _{iss}		2400		pF	V _{DS} = 25V, f = 1.0MHz, V _{GS} = 0V
C _{oss}		950		pF	
t _{on}		400		ns	I _D = 20A, V _{DD} ≅ 30V, R _L = 1.5Ω, V _{GS} = 10V, See Figure 2 on Page 5.
t _{off}		195		ns	

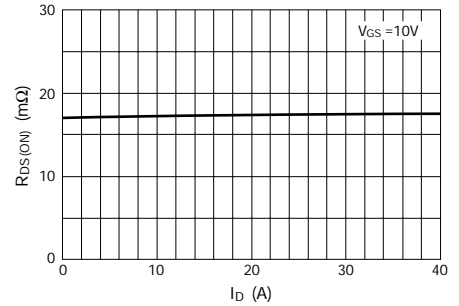
I_D - V_{DS} Characteristics (typical)



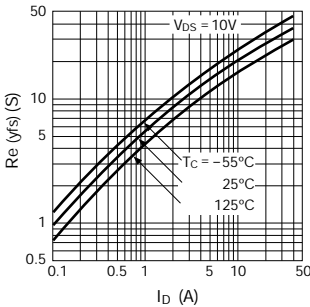
I_D - V_{GS} Characteristics (typical)



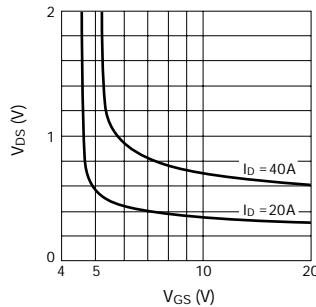
R_{DS(on)} - I_D Characteristics (typical)



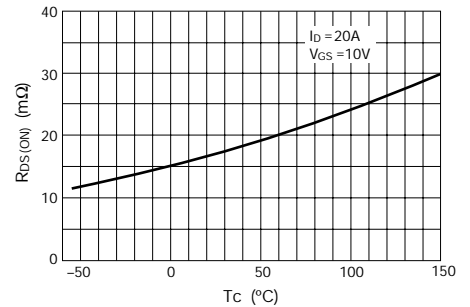
Re (yfs) - I_D Characteristics (typical)



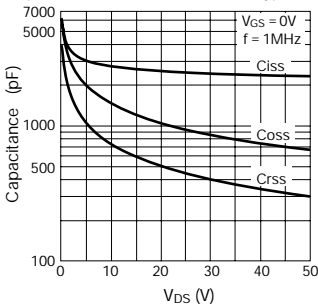
V_{DS} - V_{GS} Characteristics (typical)



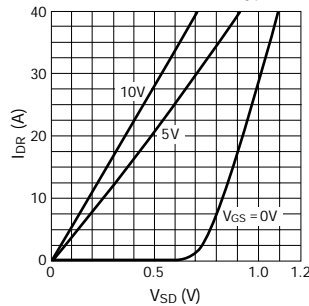
R_{DS(on)} - T_c Characteristics (typical)



Capacitance - V_{DS} Characteristics (typical)



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



P_D - T_a Characteristics

