2SK766

Silicon N-channel Power F-MOS FET

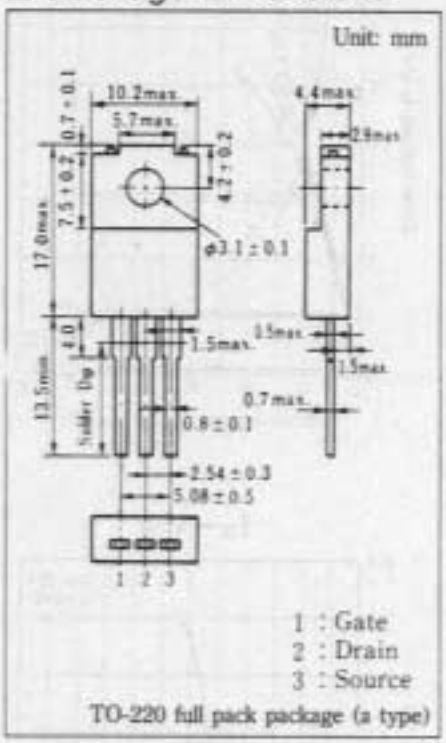
■ Features

- Low ON resistance R_{DS} (on) : R_{DS} (on) = 2.4Ω (typ.)
- High switching rate : t_f = 35ns (typ.)
- No secondary breakdown
- High breakdown voltage

■ Application

- No contact relay
- Solenoid drive
- Motor drive
- Control equipment
- Switching power source

■ Package Dimensions



TO-220 full pack package (a type)

■ Absolute Maximum Ratings (Tc=25°C)

Item		Symbol	Value	Unit
Drain-source voltage		V_{DSS}	500	V
Gate-source voltage		V_{GSS}	±20	V
Drain current	DC	I_D	3	A
	Peak-to-peak value	I_{DP}	6	
Power dissipation	Tc=25℃	P_D	40	W
	Ta=25℃		2.0	
Channel temperature		T_{ch}	150	℃
Storage temperature		T_{stg}	−55 ~ +150	℃

■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Drain current	I_{DSS}	V_{DS}=400V, V_{GS}=0			0.1	mA
Gate-source current	I_{GSS}	V_{GS}=±20V, V_{DS}=0			±1	μA
Drain-source voltage	V_{DSS}	I_D = 1 mA, V_{GS}=0	500			V
Gate threshold voltage	V_{th}	V_{DS}=25V, I_D=1mA	1		5	V
Drain-source ON resistance	R_{DS}(on)	V_{GS}=10V, I_D=2A		2.4	3.6	Ω
Forward transfer admittance	| Yfs |	V_{DS}=25V, I_D=2A	1.2	2.0		S
Input capacitance	C_{iss}	V_{DS}=20V, V_{GS}=0, f=1MHz		315		pF
Output capacitance	C_{oss}			65		pF
Reverse transfer capacitance	C_{rss}			30		pF
Turn-on time	t_{on}	V_{GS}=10V, I_D=2A V_{DD}=150V, R_L=75Ω		30		ns
Fall time	t_f			35		ns
Delay time	t_d(off)			55		ns