2SK996

Silicon N-channel Power F-MOS FET

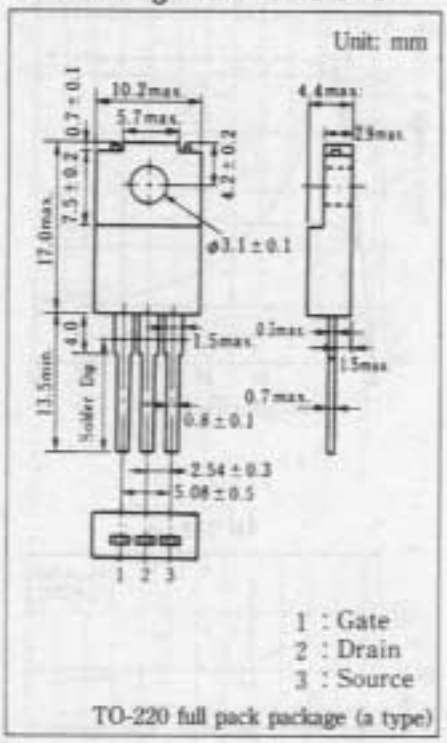
■ Features

- Low ON resistance R_{DS} (on) : R_{DS} (on) = 1.2Ω (typ.)
- High switching rate : t_f = 60ns (typ.)
- No secondary breakdown
- High breakdown voltage, large power

■ Application

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

■ Package Dimensions



■ Absolute Maximum Ratings (Tc=25°C)

Item		Symbol	Value	Unit
Drain-source voltage		V_{DSS}	600	V
Gate-source voltage		V_{GSS}	±20	V
Drain current	DC	I_D	4	A
	Peak-to-peak value	I_{DP}	8	
Power dissipation	Tc=25℃	P_D	50	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}=480V, 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	600			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		1.2	1.8	Ω
Forward transfer admittance	| Yfs |	V_{DS}=25V, I_D=2A	2.7	4.5		S
Input capacitance	C_{iss}	V_{DS}=20V, V_{GS}=0, f=1MHz		1480		pF
Output capacitance	C_{oss}			150		pF
Reverse transfer capacitance	C_{rss}			50		pF
Turn-on time	t_{on}	V_{GS}=10V, I_D=2A V_{DD}=150V, R_L=75Ω		40		ns
Fall time	t_f			60		ns
Delay time	t_d(off)			300		ns