

2SK808, 2SK808A

Silicon N-channel Power F-MOS FET

■ Features

- Low ON resistance $R_{DS(on)}$: $R_{DS(on)} = 4.7\Omega$ (typ.)
- High switching rate : $t_f = 40\text{ns}$ (typ.)
- No secondary breakdown
- High breakdown voltage

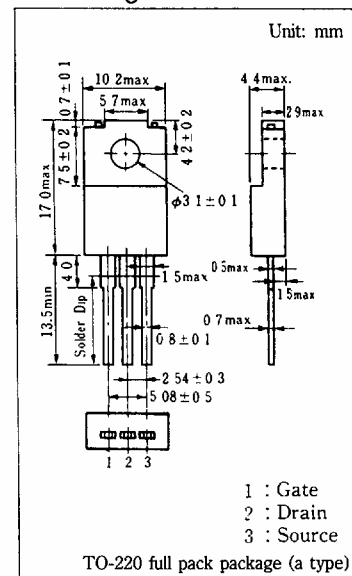
■ Application

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

■ Absolute Maximum Ratings ($T_c = 25^\circ\text{C}$)

Item	Symbol	Value	Unit
Drain-source voltage	2SK808	800	V
	2SK808A	900	
Gate-source voltage	V_{GSS}	± 20	V
Drain current	DC	1	A
	Peak-to-peak value	3	
Power dissipation	$T_c = 25^\circ\text{C}$	45	W
	$T_a = 25^\circ\text{C}$	2.0	
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$

■ Package Dimensions



■ Electrical Characteristics ($T_c = 25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Drain current	I_{DSS}	$V_{DS} = 640\text{V}, V_{GS} = 0$			0.1	mA
Gate-source current	I_{GSS}	$V_{GS} = \pm 20\text{V}, V_{DS} = 0$			± 1	μA
Drain-source voltage	V_{DSS}	$I_D = 1\text{mA}, V_{GS} = 0$	800			V
			900			
Gate threshold voltage	V_{th}	$V_{DS} = 25\text{V}, I_D = 1\text{mA}$	1		5	V
Drain-source ON resistance	$R_{DS(on)}$	$V_{GS} = 10\text{V}, I_D = 0.7\text{A}$		4.7	7.0	Ω
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 25\text{V}, I_D = 0.7\text{A}$	0.4	0.8		S
Input capacitance	C_{iss}	$V_{DS} = 20\text{V}, V_{GS} = 0, f = 1\text{MHz}$		380		pF
Output capacitance	C_{oss}				75	pF
Reverse transfer capacitance	C_{rss}				35	pF
Turn-on time	t_{on}				35	ns
Fall time	t_f	$V_{GS} = 10\text{V}, I_D = 0.7\text{A}$ $V_{DD} = 200\text{V}, R_L = 285\Omega$			40	ns
Delay time	$t_d(\text{off})$				70	ns

