

2SK796, 2SK796A

Silicon N-channel Power F-MOS FET

■ Features

- Low ON resistance $R_{DS(on)}$: $R_{DS(on)} = 3.0\Omega$ (typ.)
- High switching rate : $t_f = 40ns$ (typ.)
- No secondary breakdown
- High breakdown voltage, large power

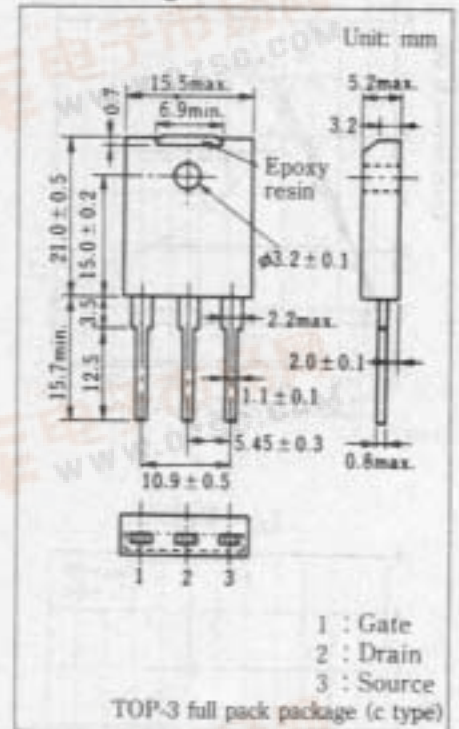
■ Application

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

■ Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Value	Unit
Drain-source voltage	2SK796	800	V
	2SK796A	900	
Gate-source voltage	V_{GS}	± 20	V
Drain current	DC	3	A
	Pulsed	6	
Power dissipation	Tc = 25°C	90	W
	Ta = 25°C	3.0	
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 ~ +150	°C

■ Package Dimensions



■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Drain current	I_{DSS}	$V_{DS} = 640V, V_{GS} = 0$			0.1	mA
Gate-source current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0$			± 1	μA
Drain-source voltage	V_{DSS}	$I_D = 1mA, V_{GS} = 0$	800			V
			900			
Gate threshold voltage	V_{th}	$V_{DS} = 25V, I_D = 1mA$	1		5	V
Drain-source ON resistance	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 2A$		3.5	5.0	Ω
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 25V, I_D = 2A$	0.7	1.7		S
Input capacitance	C_{iss}	$V_{DS} = 20V, V_{GS} = 0, f = 1MHz$		600		pF
Output capacitance	C_{oss}				110	pF
Reverse transfer capacitance	C_{rss}				50	pF
Turn-on time	t_{on}	$V_{GS} = 10V, I_D = 2A$		55		ns
	t_f			40		ns
	t_d (off)		$V_{DD} = 200V, R_L = 100\Omega$		110	

