

2SK769

Silicon N-channel Power F-MOS FET

■ Features

- Low ON resistance $R_{DS(on)}$: $R_{DS(on)} = 0.65\Omega$ (typ.)
- High switching rate : $t_f = 90\text{ns}$ (typ.)
- No secondary breakdown
- High breakdown voltage, large power

■ Application

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

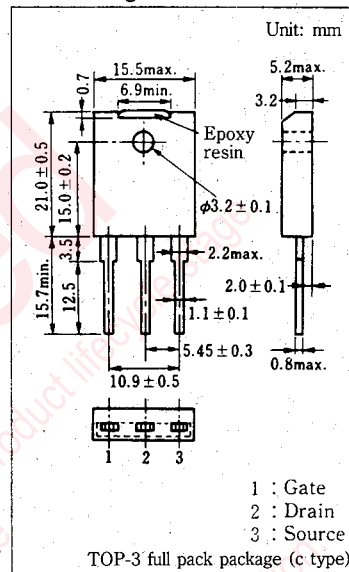
■ Absolute Maximum Ratings (Tc=25°C)

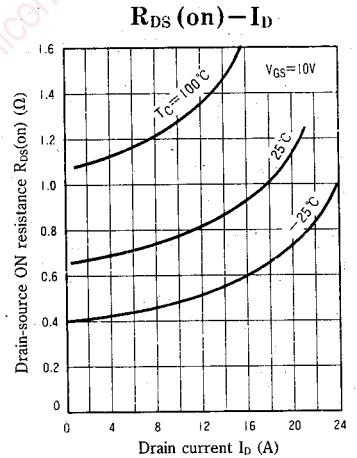
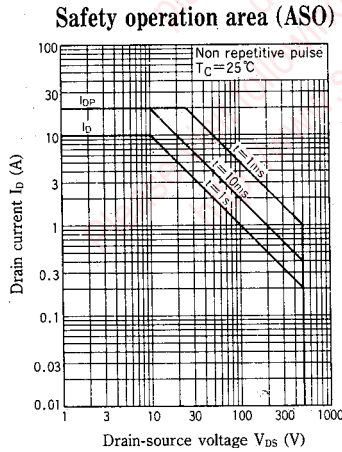
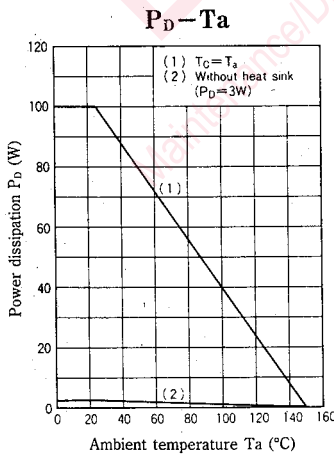
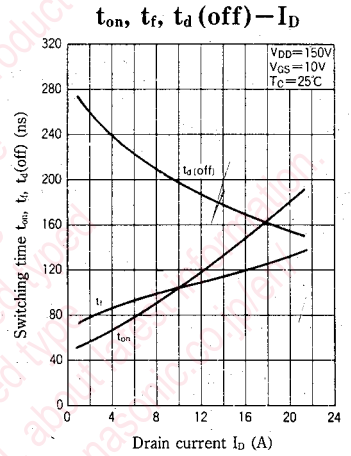
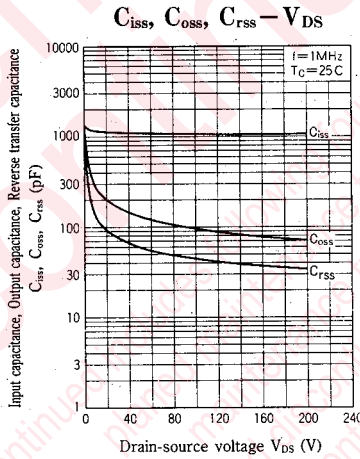
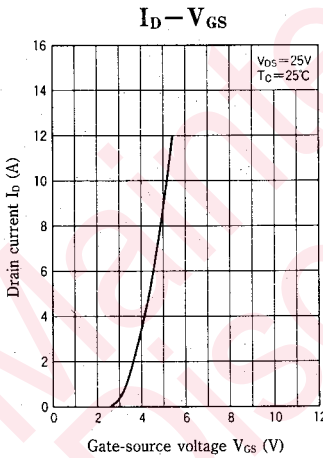
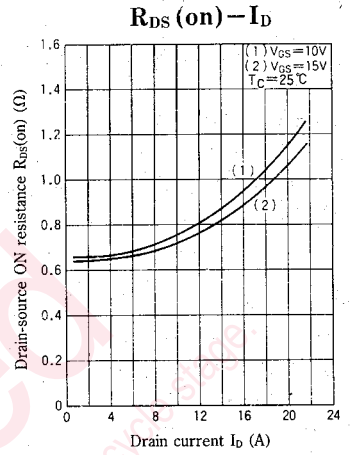
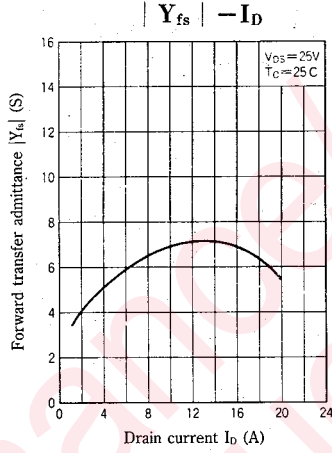
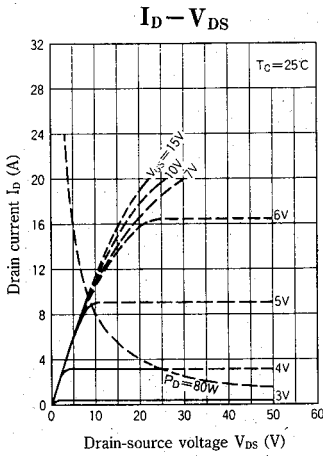
Item	Symbol	Value	Unit
Drain-source voltage	V_{DSS}	500	V
Gate-source voltage	V_{GSS}	± 20	V
Drain current	DC	I_D	10
	Peak-to-peak value	I_{DP}	20
Power dissipation	Tc=25°C	P_D	100
	Ta=25°C		3.0
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

■ Electrical Characteristics (Tc=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit	
Drain current	I_{DSS}	$V_{DS} = 400\text{V}, V_{GS} = 0$			0.1	mA	
Gate-source current	I_{GSS}	$V_{GS} = \pm 20\text{V}, V_{DS} = 0$			± 1	μA	
Drain-source voltage	V_{DSS}	$I_D = 1\text{mA}, V_{GS} = 0$	500			V	
Gate threshold voltage	V_{th}	$V_{DS} = 25\text{V}, I_D = 1\text{mA}$	1		5	V	
Drain-source ON resistance	$R_{DS(on)}$	$V_{GS} = 10\text{V}, I_D = 5\text{A}$		0.65	1.0	Ω	
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 25\text{V}, I_D = 5\text{A}$	3.0	5.0		S	
Input capacitance	C_{iss}	$V_{DS} = 20\text{V}, V_{GS} = 0, f = 1\text{MHz}$		1100		pF	
Output capacitance	C_{oss}				200		pF
Reverse transfer capacitance	C_{rss}				90		pF
Turn-on time	t_{on}	$V_{GS} = 10\text{V}, I_D = 5\text{A}$ $V_{DD} = 150\text{V}, R_L = 30\Omega$		70		ns	
Fall time	t_f				90		ns
Delay time	$t_d(\text{off})$				230		ns

■ Package Dimensions





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