

2SK765, 2SK765A

Silicon N-channel Power F-MOS FET

Features

- Low ON resistance $R_{DS(on)}$: $R_{DS(on)} = 0.5\Omega$ (typ.)
- High switching rate : $t_r = 90ns$ (typ.)
- No secondary breakdown
- High breakdown voltage, large power

Application

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

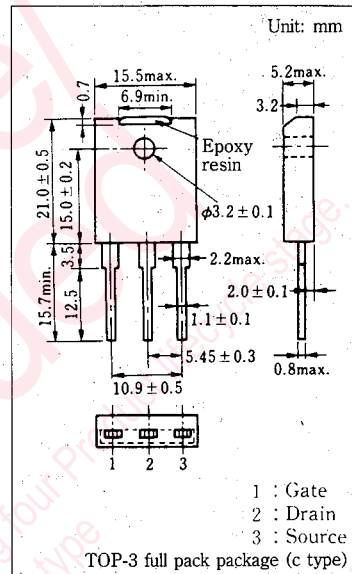
Absolute Maximum Ratings ($T_c = 25^\circ C$)

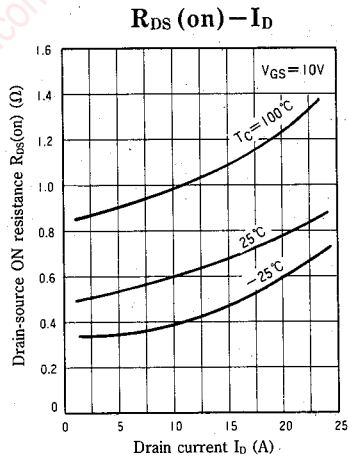
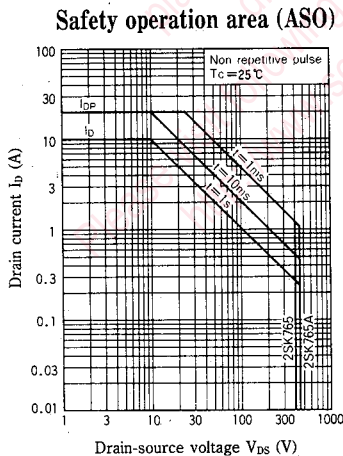
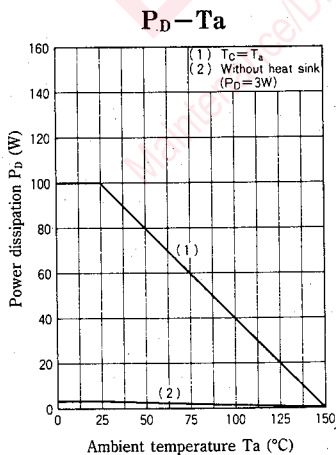
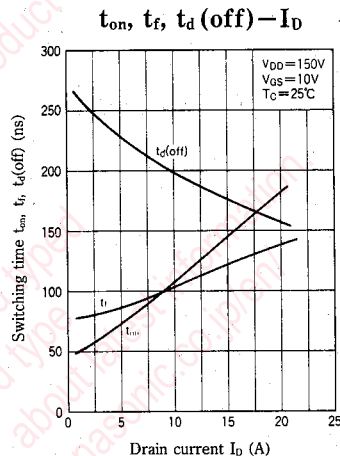
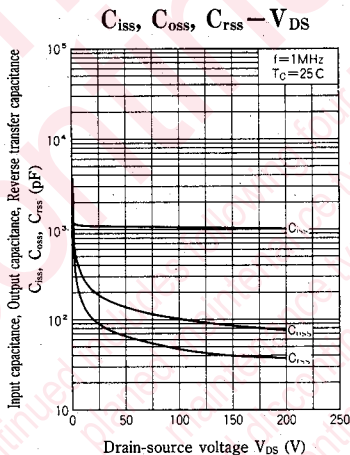
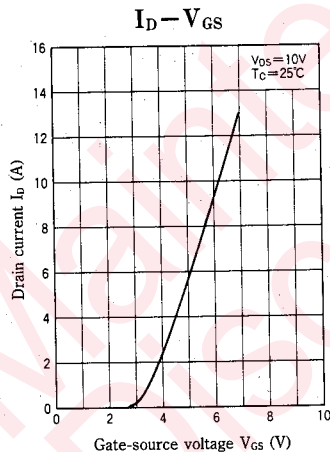
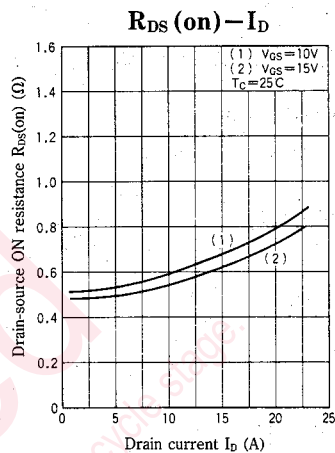
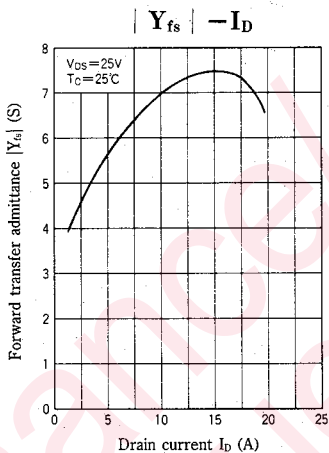
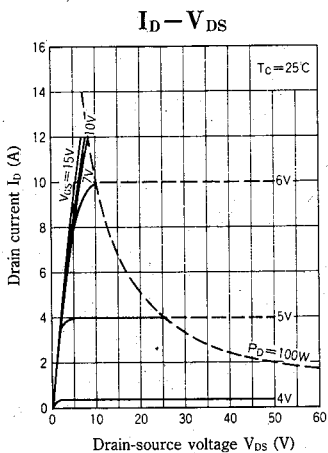
Item	Symbol	Value	Unit
Gate-source voltage	V_{DSS}	400	V
		450	
Gate-drain voltage	V_{GSS}	± 20	V
Drain current	I_D	10	A
		20	
Power dissipation	P_D	100	W
		3.0	
Channel temperature	T_{ch}	150	$^\circ C$
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ C$

Electrical Characteristics ($T_c = 25^\circ C$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Drain current	I_{DSS}	$V_{DS} = 320V, V_{GS} = 0$			0.1	mA
Gate-source current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0$			± 1	μA
Gate-source voltage	V_{DSS}	$I_D = 1mA, V_{GS} = 0$	400			V
			450			
Gate threshold voltage	V_{th}	$V_{DS} = 25V, I_D = 1mA$	1		5	V
Drain-source ON resistance	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 5A$		0.5	0.75	Ω
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 25V, I_D = 5A$	3.5	5.5		S
Input capacitance	C_{iss}	$V_{DS} = 20V, V_{GS} = 0, f = 1MHz$		1100		pF
Output capacitance	C_{oss}			215		pF
Reverse transfer capacitance	C_{rss}			100		pF
Turn-on time	t_{on}				70	
Turn-off time	t_f	$V_{GS} = 10V, I_D = 5A$		90		ns
Storage time	$t_d(off)$	$V_{DD} = 150V, R_L = 30\Omega$		230		ns

Package Dimensions





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