2SK2276

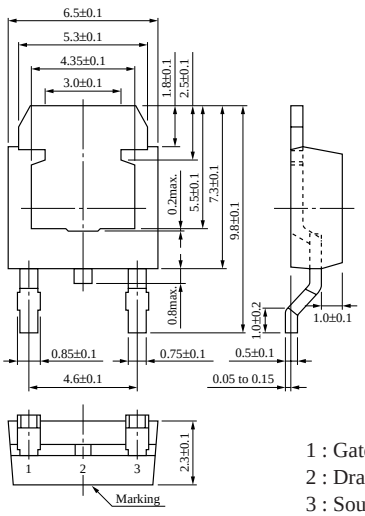
Silicon N-Channel MOS

For switching

■ Features

- Low ON-resistance $R_{DS(on)}$
- High-speed switching

Unit : mm



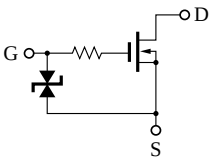
1 : Gate
2 : Drain
3 : Source
EIAJ : SC-63
U Type Package

■ Absolute Maximum Ratings (Tc = 25˚C)

Parameter	Symbol	Rating	Unit
Drain-Source breakdown voltage	V_{DSS}	60	V
Gate-Source voltage	V_{GSS}	±20	V
Drain current	I_D	±3	A
Max drain current	I_{DP} *1	±5	A
Allowable power dissipation Chan-	P_D *2	10	W
nel temperature	T_{ch}	150	˚C
Storage temperature	T_{stg}	–55 to +150	˚C

* 1 t ≤ 300µs , Duty Cycle < 10% * 2 T_C= 25˚C

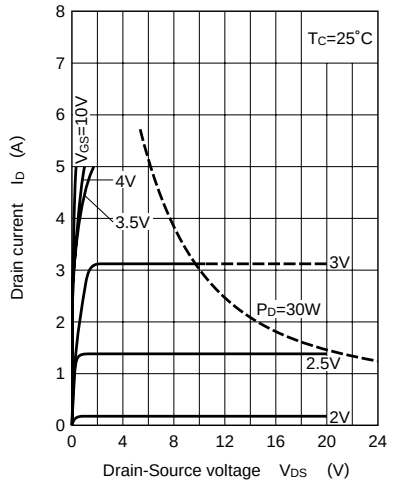
■ Internal Connection



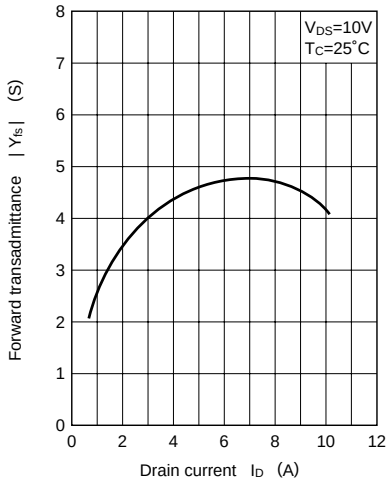
■ Electrical Characteristics (Tc = 25˚C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Drain-Source cut-off current	I_{DSS}	V_{DS}= 40V, V_{GS}= 0			10	µ A
Gate-Source leakage current	I_{GSS}	V_{GS}=±20V, V_{DS}= 0			±1	µ A
Drain-Source breakdown voltage	V_{DSS}	I_D=1mA, V_{GS}= 0	60			V
Gate threshold voltage	V_{th}	V_{DS}=10V, I_D=1mA	1		2.5	V
Drain-Source ON-resistance	$R_{DS(on)}$	V_{GS}=10V, I_D= 3A		0.135	0.2	Ω
Forward transadmittance	$\|Y_{fs}\|$	V_{DS}=10V, I_D= 3A	2.4	4		S
Input capacitance	C_{iss}	V_{DS}=10V, V_{GS}= 0, f=1MHz		400		pF
Output capacitance	C_{oss}			210		pF
Feedback capacitance	C_{rss}			80		pF
Turn-on time	t_{on}	V_{GS}=10V, I_D= 3A, R_L=10Ω		29		ns
Fall time	t_f			53		ns
Turn-off time (delay time)	$t_{d(off)}$			97		ns

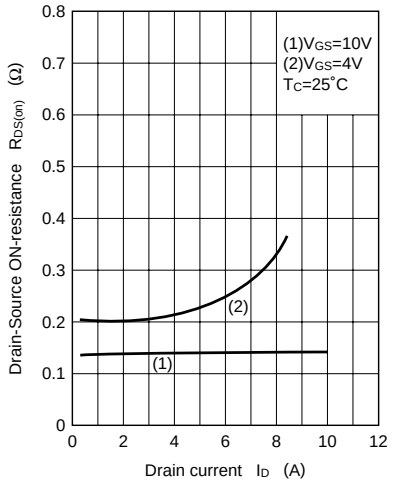
$I_D - V_{DS}$



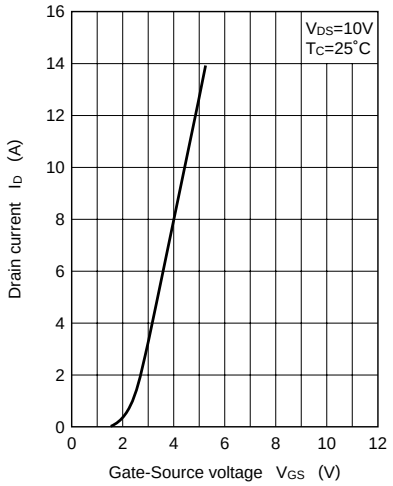
$|Y_{fs}| - I_D$



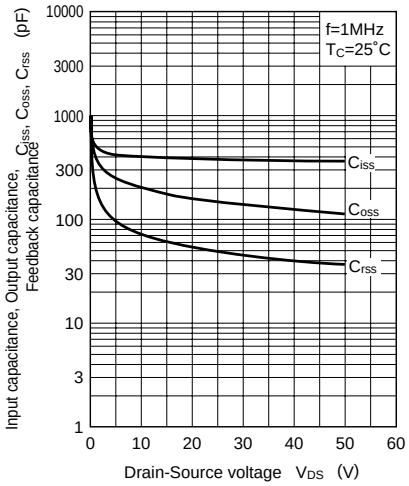
$R_{DS(on)} - I_D$



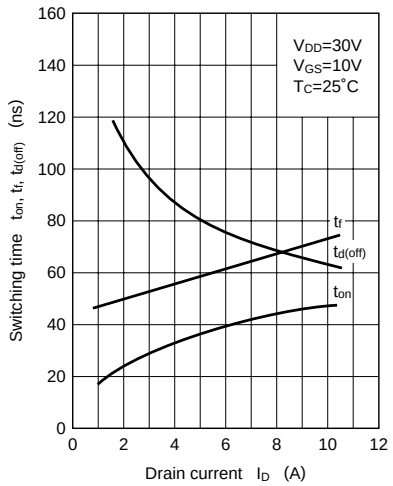
$I_D - V_{GS}$



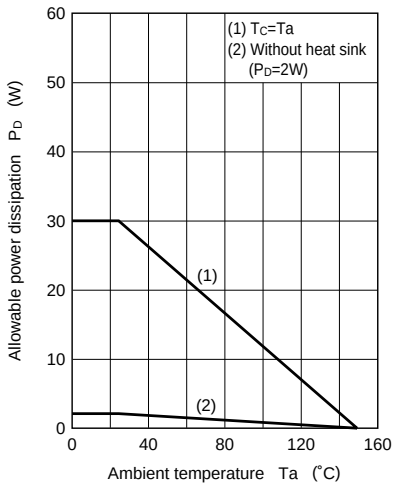
$C_{iss}, C_{oss}, C_{rss} - V_{DS}$



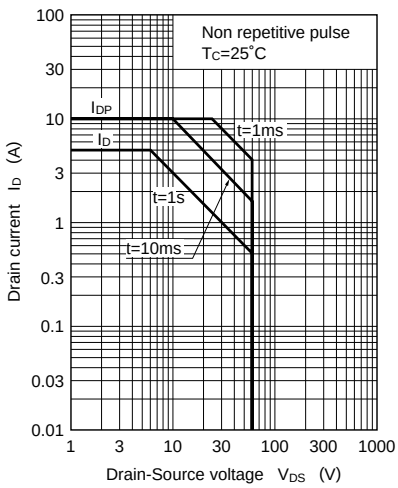
$t_{on}, t_f, t_{d(off)} - I_D$



$P_D - Ta$



Area of safe operation (ASO)



$R_{DS(on)} - I_D$