

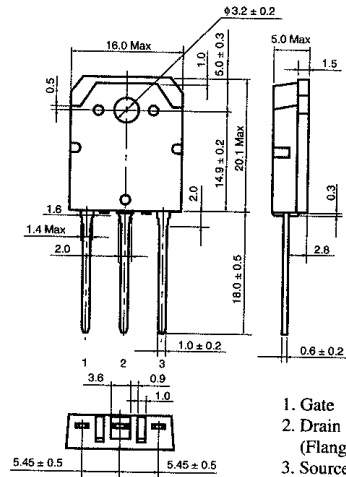
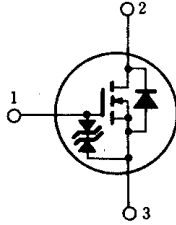
2SK685

SILICON N-CHANNEL MOS FET

高速度電力スイッチング

■ 特長

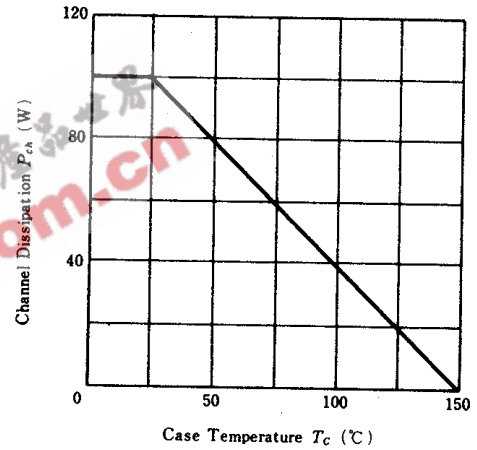
- オン抵抗が低い。
- スwitchングスピードが速い。
- 駆動電力が小さい。
- 2次降伏がない。
- スwitchングレギュレータ, DC-DCコンバータ, モータドライバなどに最適。



1. Gate
2. Drain (Flange)
3. Source
(Dimensions in mm)

(TO-3P)

POWER VS. TEMPERATURE DERATING



■ ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Item	Symbol	Rating	Unit
Drain-Source Voltage	V _{DS}	1000	V
Gate-Source Voltage	V _{GS}	±20	V
Drain Current	I _D	5	A
Drain Peak Current	I _{D(pulse)*}	15	A
Body-Drain Diode Reverse Drain Current	I _{DR}	5	A
Channel Dissipation	P _{ch**}	100	W
Channel Temperature	T _{ch}	150	°C
Storage Temperature	T _{stg}	-55 ~ +150	°C

*PW ≤ 10μs, duty cycle ≤ 1% **Value at T_c=25°C

■ ELECTRICAL CHARACTERISTICS (T_a=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	V _{(BR)DS}	I _D =10mA, V _{GS} =0	1000	—	—	V
Gate-Source Breakdown Voltage	V _{(BR)GS}	I _G =±100μA, V _{DS} =0	±20	—	—	V
Gate-Source Leak Current	I _{GSS}	V _{GS} =±16V, V _{DS} =0	—	—	±10	μA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =800V, V _{GS} =0	—	—	250	μA
Gate-Source Cutoff Voltage	V _{GS(off)}	I _D =1mA, V _{DS} =10V	2.0	—	4.0	V
Static Drain-Source on State Resistance	R _{DS(on)}	I _D =3A, V _{GS} =10V*	—	1.5	2.0	Ω
Forward Transfer Admittance	y _{fs}	I _D =3A, V _{DS} =20V*	2.0	3.5	—	S
Input Capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0, f=1MHz	—	1900	—	pF
Output Capacitance	C _{oss}		—	1200	—	pF
Reverse Transfer Capacitance	C _{rss}		—	760	—	pF
Turn-on Delay Time	t _{d(on)}		—	25	—	ns
Rise Time	t _r	I _D =3A, V _{GS} =10V, R _L =10Ω	—	240	—	ns
Turn-off Delay Time	t _{d(off)}		—	220	—	ns
Fall Time	t _f		—	230	—	ns
Body-Drain Diode Forward Voltage	V _{DF}	I _F =5A, V _{GS} =0	—	1.3	—	V
Body-Drain Diode Reverse Recovery Time	t _{rr}	I _F =5A, V _{GS} =0, di _F /dt=100A/μs	—	150	—	ns

*Pulse Test