2SK2342

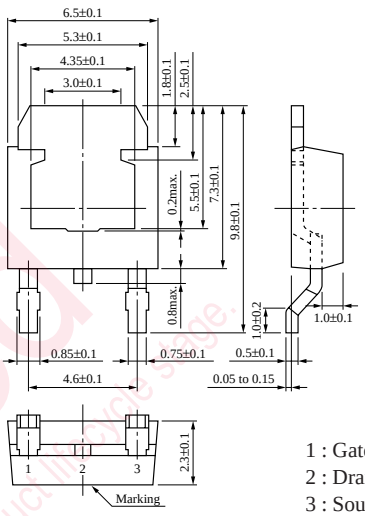
Silicon N-Channel MOS

For motor drive
For DC-DC converter

■ Features

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

Unit : mm



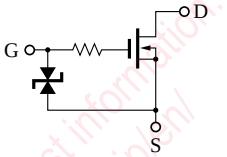
1 : Gate
2 : Drain
3 : Source
EIAJ : SC-63
U Type Package

■ Absolute Maximum Ratings (Tc = 25˚C)

Parameter	Symbol	Rating	Unit
Drain-Source breakdown voltage	V_{DSS}	30	V
Gate-Source voltage	V_{GSS}	±15	V
Drain current	I_D	±2	A
	I_{DP} *1	±8	A
Allowable power dissipation	P_D	0.75	W
	P_D *2	10	W
Channel temperature	T_{ch}	150	˚C
Storage temperature	T_{stg}	–55 to +150	˚C

* 1 t ≤ 200µ s, 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}= 25V, V_{GS}= 0			10	µ A
Gate-Source leakage current	I_{GSS}	V_{GS}= ±15V, V_{DS}= 0			±10	µ A
Drain-Source breakdown voltage	V_{DSS}	I_D= 0.1mA, V_{GS}= 0	30			V
Gate threshold voltage	V_{th}	V_{DS}= 5V, I_D=1mA	0.8		2	V
Drain-Source ON-resistance	$R_{DS(on)}1$	V_{GS}= 4V, I_D=1A		0.32	0.45	Ω
	$R_{DS(on)}2$	V_{GS}=10V, I_D=1A		0.26	0.35	Ω
Forward transadmittance	$\|Y_{fs}\|$	V_{DS}=10V, I_D=1A	1			S
Input capacitance	C_{iss}	V_{DS}=10V, V_{GS}= 0, f=1MHz		185		pF
Output capacitance	C_{oss}			90		pF
Feedback capacitance	C_{rss}			35		pF
Turn-on time	t_{on}	V_{GS}=10V, I_D=1A, V_{DD}=10V R_L=10Ω		40		ns
Fall time	t_f			100		ns
Turn-off time (delay time)	$t_{d(off)}$			180		ns

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