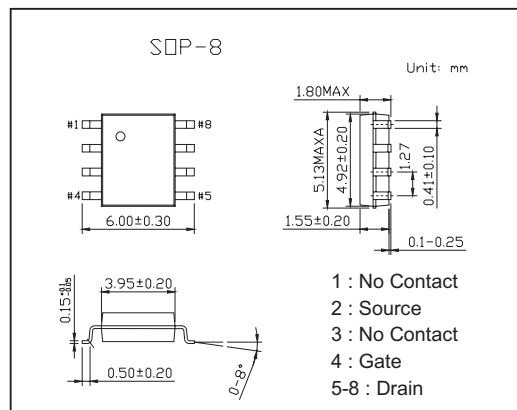


N-Channel Silicon MOSFET

2SK2859

■ Features

- Low On resistance.
- Ultrahigh-speed switching.
- 4V drive.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	V _{DSS}	100	V
Gate to source voltage	V _{GSS}	±15	V
Drain current	I _D	2	A
	I _{DP} *	8	A
Power dissipation	P _D	1.6	W
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* PW ≤ 10 μs, Duty Cycle ≤ 1%

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain to source breakdown voltage	V _{DSS}	I _D =1mA, V _{GS} =0	100			V
Drain cut-off current	I _{DSS}	V _{DS} =100V, V _{GS} =0			100	μA
Gate leakage current	I _{GSS}	V _{GS} =±12V, V _{DS} =0			±10	μA
Gate to source cutoff voltage	V _{GS(off)}	V _{DS} =10V, I _D =1mA	1.0		2.0	V
Forward transfer admittance	Y _{fs}	V _{DS} =10V, I _D =2A	2.5	4		S
Drain to source on-state resistance	R _{DS(on)}	V _{GS} =10V, I _D =2A		0.3	0.4	Ω
		V _{GS} =4V, I _D =2A		0.4	0.55	Ω
Input capacitance	C _{iss}	V _{DS} =20V, V _{GS} =0, f=1MHZ		380		pF
Output capacitance	C _{oss}			80		pF
Reverse transfer capacitance	C _{rss}			15		pF
Turn-on delay time	t _{on}	I _D =2A, V _{GS(on)} =10V, R _L =25 Ω, V _{DD} =50V		10		ns
Rise time	t _r			13		ns
Turn-off delay time	t _{off}			70		ns
Fall time	t _f			30		ns
Diode forward voltage	V _{SD}	I _S =2A, V _{GS} =0		1	1.2	V