MOS Field Effect Power Transistor

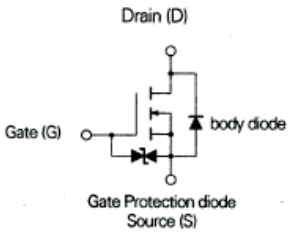
2SK1284

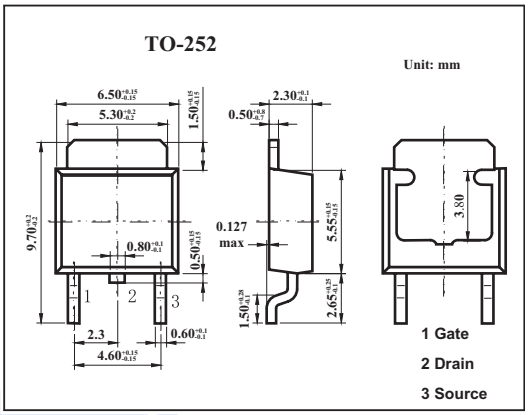
■ Features

- Low on-state resistance

  $R_{DS(on)} \leqslant 0.32\ \Omega$.@V_{GS}=10V,I_D=2A

  $R_{DS(on)} \leqslant 0.40\ \Omega$ @V_{GS}=4V,I_D=2A
- Low Ciss Ciss=500pF TYP.
- Built-in G-S Gate Protection Diode





■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	100	V
Gate to source voltage	V_{GSS}	±20	V
Drain current (DC)	I_D	±3.0	A
Drain current(pulse) *	I_D	±12	A
Power dissipation T_C=25℃	P_D	2.0	W
T_A=25℃		1.0	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW≤ 10ms, duty cycle ≤ 5%

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	V_{DS}=100V,V_{GS}=0			10	μA
Gate leakage current	I_{GSS}	V_{GS}=±20V,V_{DS}=0			±10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	V_{DS}=10V,I_D=1mA	1.0		2.5	V
Forward transfer admittance	$\lvert Y_{fs} \rvert$	V_{DS}=10V,I_D=2A	2.4			s
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=10V,I_D=2A		0.26	0.32	Ω
		V_{GS}=4.0V,I_D=2A		0.32	0.40	Ω
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		500		pF
Output capacitance	C_{oss}			160		pF
Reverse transfer capacitance	C_{rss}			20		pF
Turn-on delay time	$t_{d(on)}$	I_D=2A,$V_{GS(on)}$=10V,R_L=25 Ω ,V_{DD}=50V,R_G=10 Ω		40		ns
Rise time	t_r			55		ns
Turn-off delay time	$t_{d(off)}$			500		ns
Fall time	t_f			120		ns