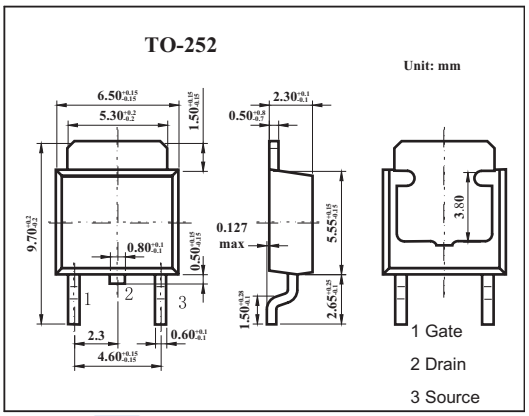
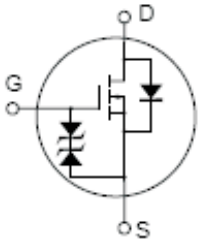
Silicon P-Channel MOSFET

2SJ387S



Features

- Low on-resistance
- Low drive current
- 2.5 V Gate drive device can be driven from 3 V Source
- Suitable for Switching regulator, DC - DC converter



Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	-20	V
Gate to source voltage	V_{GSS}	±10	V
Drain current (DC)	I_D	-10	A
Drain current(pulse) *	I_D	-40	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW ⩽ 10 μs; d ⩽ 1%.

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain to source breakdown voltage	V_{DSS}	I_D=-10mA,V_{GS}=0	-20			V
Gate to source breakdown voltage	V_{GSS}	I_G=±200 μA ,V_{DS}=0	±10			V
Drain cut-off current	I_{DSS}	V_{DS}=-16V,V_{GS}=0			-100	μA
Gate leakage current	I_{GSS}	V_{GS}=±6.5V,V_{DS}=0			±10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	V_{DS}=-10V,I_D=-1mA	-0.5		-1.5	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS}=-10V,I_D=-5A	7	12		S
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=-4V,I_D=-5A		0.05	0.07	Ω
		V_{GS}=-2.5V,I_D=-5A		0.07	0.1	Ω
Input capacitance	C_{iss}	V_{DS}=-10V,V_{GS}=0,f=1MHZ		1170		pF
Output capacitance	C_{oss}			860		pF
Reverse transfer capacitance	C_{rss}			310		pF
Turn-on delay time	$t_{d(on)}$	$V_{GS(on)}$=-4V,I_D=--5A R_L=2Ω		20		ns
Rise time	t_r			325		ns
Turn-off delay time	$t_{d(off)}$			350		ns
Fall time	t_f			425		ns
Total Gate Charge	Q_g	V_{GS}=-10V,I_D=-1A,V_{DD}=-48V		6.5		nC
Gate to Source Charge	Q_{gs}			4.5		nC
Gate Drain Charge	Q_{gd}			2.0		nC
Body to drain diode forward voltage	V_{DF}	I_F=-10A,V_{GS}=0		-1.0		V
Body to drain diode reverse recovery time	t_{rr}	I_F=-10A,V_{GS}=0,di_F/dt=20A/μs		240		ns