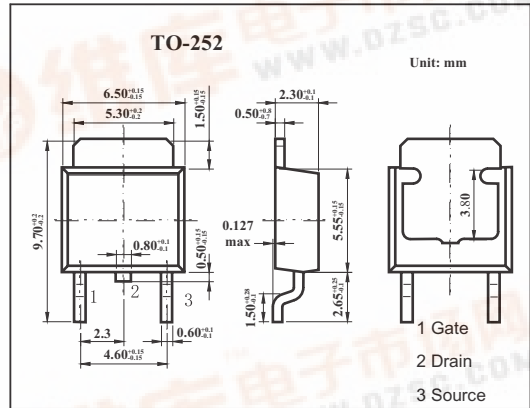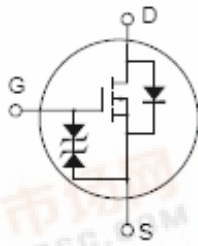## SMDType   MOSFET

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%.

2SJ387S

■ 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$_L$=2 Ω		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

KEXIN