

Mos Field Effect Power Transistor

2SJ302

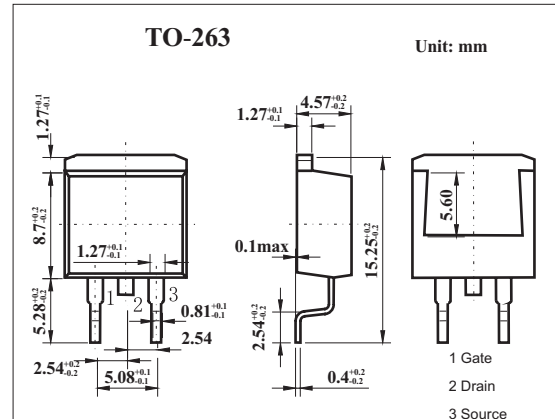
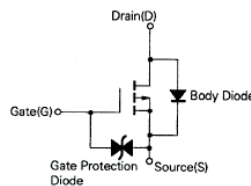
■ Features

- Low on-state resistance

$$R_{DS(on)} \leq 0.1 \Omega (V_{GS} = -10V, I_D = -8A)$$

$$R_{DS(on)} \leq 0.24 \Omega (V_{GS} = -4V, I_D = -6A)$$

- Low Ciss Ciss=1200PF TYP.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Drain to source voltage	V _{DSS}	-60	V
Gate to source voltage	V _{GSS}	-20,+10	V
Drain current (DC)	I _D	±16	A
Drain current(pulse) *	I _D	±64	A
Power dissipation	P _D	75	W
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* PW ≤ 10 μs; d ≤ 1%.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	I _{DSS}	V _D =-60V, V _{GS} =0			-10	μA
Gate leakage current	I _{GSS}	V _{GS} =±16V, V _{DS} =0			±10	μA
Gate cut-off voltage	V _{GS(off)}	V _D =-10V, I _D =-1mA	-1.0		-2.0	V
Forward transfer admittance	Y _{fs}	V _D =-10V, I _D =-8A	5.0			S
Drain to source on-state resistance	R _{DS(on)}	V _{GS} =-10V, I _D =-8A		75	100	mΩ
		V _{GS} =-4V, I _D =-6A		130	240	mΩ
Input capacitance	C _{iss}	V _D =-10V, V _{GS} =0, f=1MHZ		1200		pF
Output capacitance	C _{oss}			670		pF
Reverse transfer capacitance	C _{rss}			290		pF
Turn-on delay time	t _{d(on)}	V _{GS(on)} =-10V, V _{DD} =-30V, I _D =-8A R _L =3.75Ω, R _G =10Ω		30		ns
Rise time	t _r			170		ns
Turn-off delay time	t _{d(off)}			150		ns
Fall time	t _f			130		ns
Total Gate Charge	Q _G	V _{GS} =-10V, I _D =-8A		42		nC
Gate to Source Charge	Q _{GS}	I _D =-16V		3		nC
Gate to Drain Charge	Q _{GD}	V _{DD} =-48V		17		nC
Reverse Recovery Time	t _{rr}	I _F =-16A, V _{GS} =0, di/dt=50A/μs		110		ns
Reverse Recovery Charge	Q _{rr}			220		nC
Diode Forward Voltage	V _{SD}	I _F =-16A, V _{GS} =0		1		V