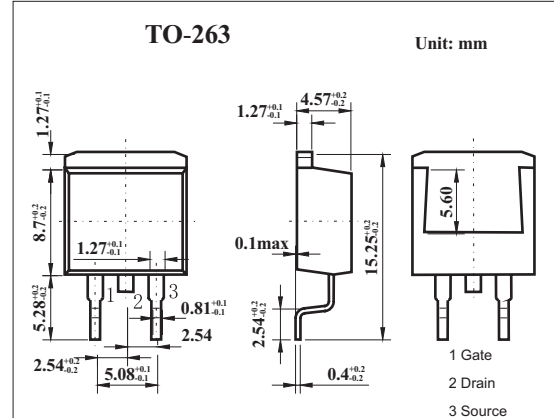


2SK3900

■ Features

- Low On-state resistance
 $R_{DS(on)1} = 8.0m\Omega$ MAX. ($V_{GS} = 10V, I_D = 41A$)
 $R_{DS(on)2} = 10m\Omega$ MAX. ($V_{GS} = 4.5V, I_D = 41A$)
- Low C_{iss} : $C_{iss} = 3500pF$ TYP.



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	60	V
Gate to source voltage	V_{GSS}	± 20	V
Drain current	I_D	± 82	A
	I_{DP}^*	± 246	A
Power dissipation	PD	$T_A=25^\circ C$	1.5
		$T_C=25^\circ C$	104
Channel temperature	T_{ch}	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

* $PW \leq 10 \mu s, Duty Cycle \leq 1\%$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Drain cut-off current	I_{DSS}	$V_{DS}=60V, V_{GS}=0$			10	μA	
Gate leakage current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS}=0$			± 10	μA	
Gate cut off voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	1.5	2.0	2.5	V	
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=41A$	28.1	56		S	
Drain to source on-state resistance	$R_{DS(on)1}$	$V_{GS}=10V, I_D=41A$		6.3	8.0	m Ω	
	$R_{DS(on)2}$	$V_{GS}=4.5V, I_D=41A$		7.4	10	m Ω	
Input capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$		3500		pF	
Output capacitance	C_{oss}			660		pF	
Reverse transfer capacitance	C_{rss}			240		pF	
Turn-on delay time	t_{on}				18		ns
Rise time	t_r	$I_D=41A, V_{GS(on)}=10V, R_G=0\Omega, V_{DD}=30V$		11		ns	
Turn-off delay time	t_{off}				62		ns
Fall time	t_f				5.5		ns
Total Gate Charge	Q_G	$V_{DD} = 48V$		65.5		nC	
Gate to Source Charge	Q_{GS}	$V_{GS} = 10V$		11.5		nC	
Gate to Drain Charge	Q_{GD}	$I_D = 82A$		16.5		nC	