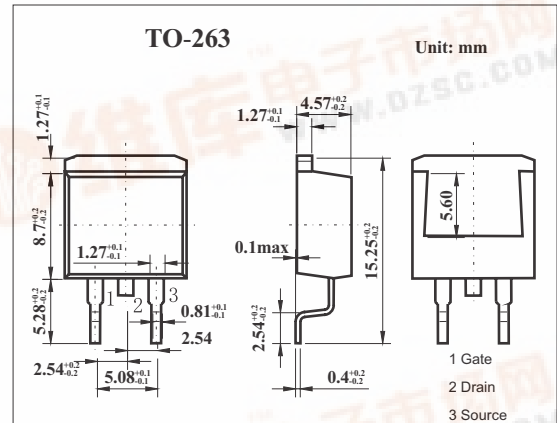


SMD Type MOSFET

MOS Field Effect Transistor 2SK3901

Features

- Low On-state resistance  
 $R_{DS(on)1} = 13m\Omega$  MAX. ( $V_{GS} = 10V, I_D = 30A$ )  
 $R_{DS(on)2} = 16.5m\Omega$  MAX. ( $V_{GS} = 4.5V, I_D = 30A$ )
- Low  $C_{iss}$ :  $C_{iss} = 1950pF$  TYP.



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DS}$	60	V
Gate to source voltage	$V_{GS}$	$\pm 20$	V
Drain current	$I_D$	$\pm 60$	A
	$I_{DP}^*$	$\pm 150$	A
Power dissipation	$P_D$	$T_A=25^\circ C$	1.5
		$T_C=25^\circ C$	64
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	$\mu A$
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0$			$\pm 10$	$\mu A$
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} $	$V_{DS}=10V, I_D=30A$	18	36		S
Drain to source on-state resistance	$R_{DS(on)1}$	$V_{GS}=10V, I_D=30A$		10.3	13	$m\Omega$
	$R_{DS(on)2}$	$V_{GS}=4.5V, I_D=30A$		12.1	16.5	$m\Omega$
Input capacitance	$C_{iss}$	$I_D=30A, V_{GS(on)}=10V, R_G=0\Omega, V_{DD}=30V$		1950		pF
Output capacitance	$C_{oss}$			380		pF
Reverse transfer capacitance	$C_{rss}$			150		pF
Turn-on delay time	$t_{on}$			12		ns
Rise time	$t_r$			6		ns
Turn-off delay time	$t_{off}$			48		ns
Fall time	$t_f$			5.0		ns
Total Gate Charge	$Q_G$	$V_{DD} = 48V$		40		nC
Gate to Source Charge	$Q_{GS}$	$V_{GS} = 10V$		7.5		nC
Gate to Drain Charge	$Q_{GD}$	$I_D = 60A$		10.0		nC

