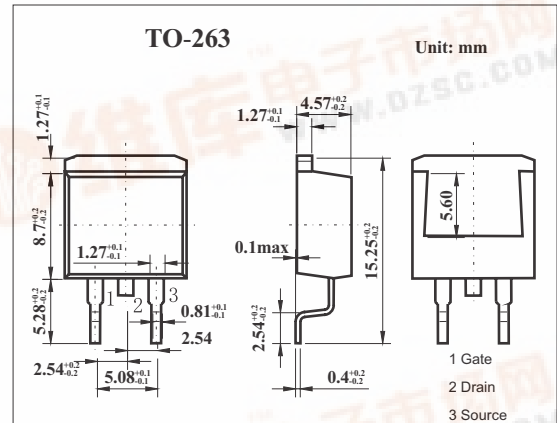


SMD Type MOSFET

MOS Field Effect Transistor
2SK3430

Features

- Super low on-state resistance:
 $R_{DS(on)1} = 7.3\text{ m}\Omega\text{ MAX. (}V_{GS} = 10\text{ V, }I_D = 40\text{ A)}$
 $R_{DS(on)2} = 15\text{ m}\Omega\text{ MAX. (}V_{GS} = 4\text{ V, }I_D = 40\text{ A)}$
- Low C_{iss} : $C_{iss} = 2800\text{ pF TYP.}$
- Built-in gate protection diode



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	30	V
Gate to source voltage	V_{GS}	± 20	V
Drain current	I_D	± 80	A
	I_{DP}^*	± 200	A
Power dissipation	P_D	$T_c=25^\circ\text{C}$	84
		$T_A=25^\circ\text{C}$	1.5
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=40\text{V, }V_{GS}=0$			10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20\text{V, }V_{DS}=0$			± 10	μA
Gat cutoff voltage	$V_{GS(off)}$	$V_{DS}=10\text{V, }I_D=1\text{mA}$	1.5	2.0	2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V, }I_D=40\text{A}$	20	40		S
Drain to source on-state resistance	$R_{DS(on)1}$	$V_{GS}=10\text{V, }I_D=40\text{A}$		5.9	7.3	$\text{m}\Omega$
	$R_{DS(on)2}$	$V_{GS}=4\text{V, }I_D=40\text{A}$		10.5	15	$\text{m}\Omega$
Input capacitance	C_{iss}	$V_{DS}=10\text{V, }V_{GS}=0, f=1\text{MHZ}$		2800		pF
Output capacitance	C_{oss}				730	pF
Reverse transfer capacitance	C_{rss}				320	pF
Turn-on delay time	t_{on}				110	ns
Rise time	t_r	$I_D=40\text{A, }V_{GS(on)}=10\text{V, }R_G=10\ \Omega, V_{DD}=20\text{V}$		1800		ns
Turn-off delay time	t_{off}			170		ns
Fall time	t_f			350		ns
Total Gate Charge	Q_G	$I_D=80\text{A, }V_{DD}=32\text{V, }V_{GS}=10\text{V}$		50		nC
Gate to Source Charge	Q_{GS}			10		nC
Gate to Drain Charge	Q_{GD}			14		nC

