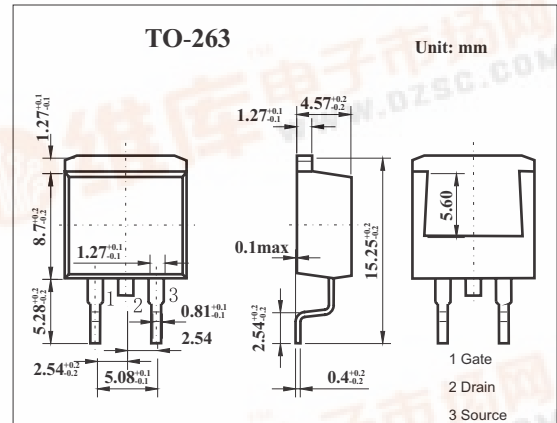


SMD Type MOSFET

MOS Field Effect Transistor  
2SK3433

■ Features

- Super low on-state resistance:  
 $R_{DS(on)1} = 26m\Omega$  MAX. ( $V_{GS} = 10V, I_D = 42A$ )  
 $R_{DS(on)2} = 41m\Omega$  MAX. ( $V_{GS} = 4V, I_D = 42A$ )
- Low  $C_{iss}$ :  $C_{iss} = 1500pF$  TYP.
- Built-in gate protection diode



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DSS}$	60	V
Gate to source voltage	$V_{GSS}$	$\pm 20$	V
Drain current	$I_D$	$\pm 40$	A
	$I_{dp}^*$	$\pm 160$	A
Power dissipation	$P_D$	$T_c=25^\circ C$	47
		$T_a=25^\circ C$	1.5
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 cutoff voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	1.5	2.0	2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=20A$	11	22		S
Drain to source on-state resistance	$R_{DS(on)1}$	$V_{GS}=10V, I_D=20A$		22	26	$m\Omega$
	$R_{DS(on)2}$	$V_{GS}=4V, I_D=20A$		29	41	$m\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=10V, V_{GS}=0, f=1MHz$		1500		pF
Output capacitance	$C_{oss}$				250	pF
Reverse transfer capacitance	$C_{rss}$			120		pF
Turn-on delay time	$t_{on}$	$I_D=20A, V_{GS(on)}=10V, R_G=10\Omega, V_{DD}=30V$		35		ns
Rise time	$t_r$			320		ns
Turn-off delay time	$t_{off}$			89		ns
Fall time	$t_f$			120		ns
Total Gate Charge	$Q_G$			30		nC
Gate to Source Charge	$Q_{GS}$	$I_D=40A, V_{DD}=48V, V_{GS}=10V$		5		nC
Gate to Drain Charge	$Q_{GD}$			8		nC

