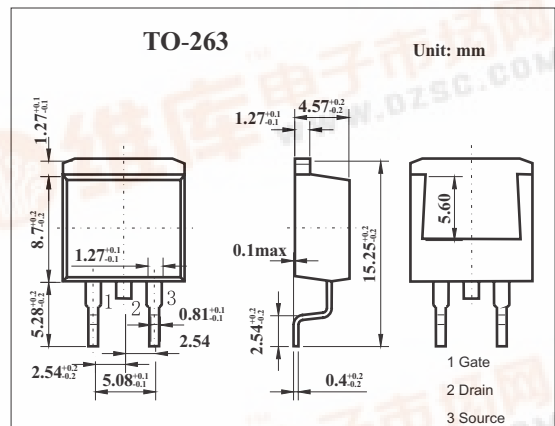


SMD Type MOSFET

MOS Field Effect Transistor  
2SK3354

Features

- Super low on-state resistance:  
 $R_{DS(on)1} = 8.0\text{ m}\Omega$  MAX. ( $V_{GS} = 10\text{ V}$ ,  $I_D = 42\text{ A}$ )  
 $R_{DS(on)2} = 12\text{ m}\Omega$  MAX. ( $V_{GS} = 4\text{ V}$ ,  $I_D = 42\text{ A}$ )
- Low  $C_{iss}$ :  $C_{iss} = 6300\text{ pF}$  TYP.
- Built-in gate protection diode



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	$V_{DS}$	60	V
Gate to source voltage	$V_{GS(AC)}$	$\pm 20$	V
Drain current	$I_D$	$\pm 83$	A
	$I_{DP}^*$	$\pm 332$	A
Power dissipation	$P_D$	$T_A=25^\circ\text{C}$	1.5
		$T_C=25^\circ\text{C}$	100
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	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	$I_{DSS}$	$V_{DS}=60\text{V}, V_{GS}=0$			10	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS} = \pm 20\text{V}, V_{DS}=0$			$\pm 10$	$\mu\text{A}$
Gate 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} $	$V_{DS}=10\text{V}, I_D=41\text{A}$	35	59		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=42\text{A}$		6.3	8.0	$\text{m}\Omega$
		$V_{GS}=4\text{V}, I_D=42\text{A}$		8.0	12	$\text{m}\Omega$
Input capacitance	$C_{iss}$	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		6300		pF
Output capacitance	$C_{oss}$			1000		pF
Reverse transfer capacitance	$C_{rss}$			490		pF
Turn-on delay time	$t_{on}$	$I_D=42\text{A}, V_{GS(on)}=10\text{V}, R_G=10\ \Omega, V_{DD}=30\text{V}$		100		ns
Rise time	$t_r$			1500		ns
Turn-off delay time	$t_{off}$			300		ns
Fall time	$t_f$			440		ns
Total Gate Charge	$Q_G$	$V_{DD} = 48\text{V}, V_{GS} = 10\text{V}, I_D = 83\text{A}$		106		nC
Gate to Source Charge	$Q_{GS}$			20		nC
Gate to Drain Charge	$Q_{GD}$			30		nC

