

isc N-Channel MOSFET Transistor

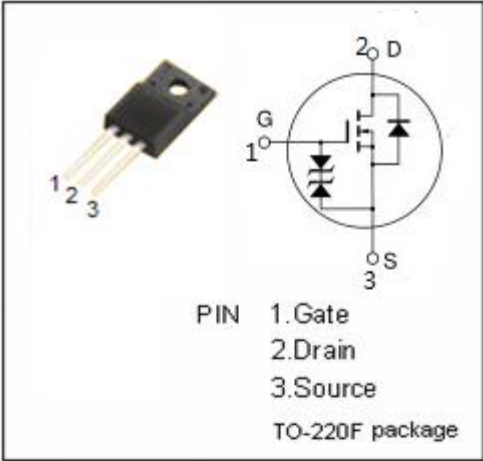
2SK2350

DESCRIPTION

- Drain Current $I_D=8.5A@T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}=200V(Min)$
- Fast Switching Speed

APPLICATIONS

- Switching Regulators
- DC-DC Converter,
- Motor Control

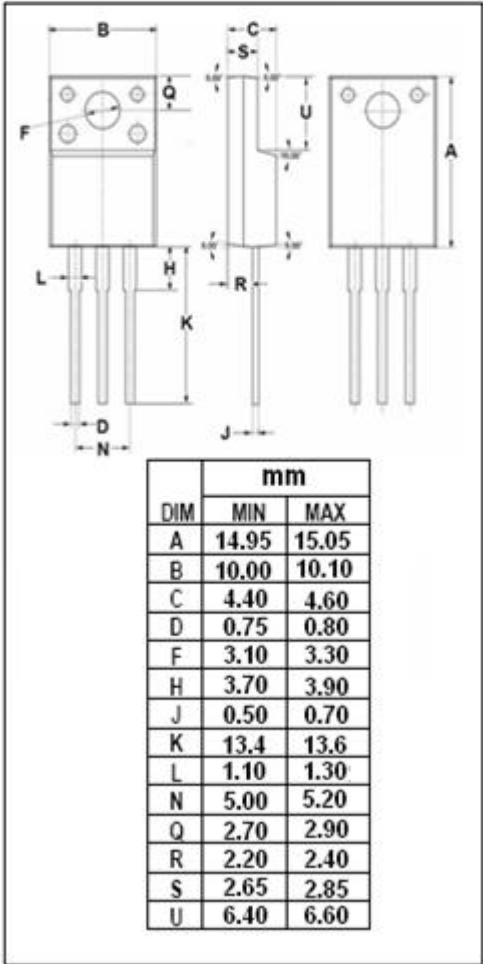


ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}C$)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	200	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $TC=25^{\circ}C$	8.5	A
$I_{D(puls)}$	Pulsed Drain Current	34	A
P_{tot}	Total Dissipation@ $TC=25^{\circ}C$	30	W
T_j	Max. Operating Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	4.16	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^{\circ}C/W$



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• ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=10\text{mA}$	200			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=10\text{V}$; $I_D=1\text{mA}$	1.5		3.5	V
V_{SD}	Diode Forward On-Voltage	$I_S=10\text{A}$; $V_{GS}=0$			2.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=5\text{A}$		0.26	0.4	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 16\text{V}$; $V_{DS}=0$			± 10	μA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=200\text{V}$; $V_{GS}=0$			100	μA
C_{iss}	Input Capacitance	$V_{DS}=10\text{V}$; $V_{GS}=0\text{V}$; $f_T=1\text{MHz}$		700		pF
C_{rss}	Reverse Transfer Capacitance			80		
C_{oss}	Output Capacitance			270		
t_r	Rise Time	$V_{GS}=10\text{V}$; $I_D=5\text{A}$; $V_{DD}=100\text{V}$; $R_L=20\Omega$		15		ns
t_{on}	Turn-on Time			25		
t_f	Fall Time			15		
t_{off}	Turn-off Time			70		