

## isc N-Channel MOSFET Transistor

2SK2185

## DESCRIPTION

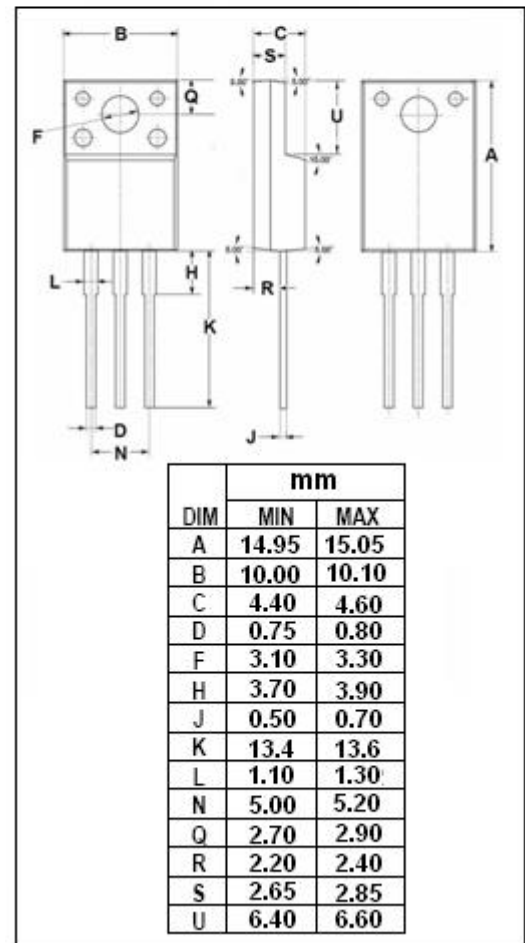
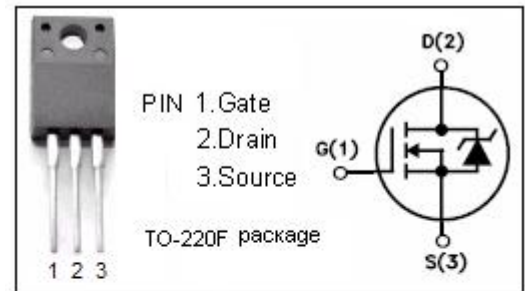
- Drain Current  $I_D = 5A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 500V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- General purpose power amplifier

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

SYMBOL	ARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	500	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-continuous@ $T_C = 25^\circ C$	5	A
$I_{D(puls)}$	Pulse Drain Current	15	A
$P_{tot}$	Total Dissipation@ $T_C = 25^\circ C$	30	W
$T_j$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



**isc N-Channel Mosfet Transistor****2SK2185****• ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 1mA	500			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> =1mA	2.5	3.0	3.5	V
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> =2.5A; V <sub>GS</sub> =0			1.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 2.5A		1.1	1.5	Ω
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±30V; V <sub>DS</sub> = 0			±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 500V; V <sub>GS</sub> = 0			250	μA
C <sub>iss</sub>	Input Capacitance	V <sub>DS</sub> =10V; V <sub>GS</sub> =0V; f <sub>T</sub> =1MHz		580		pF
C <sub>rss</sub>	Reverse Transfer Capacitance			45		
C <sub>oss</sub>	Output Capacitance			140		
t <sub>on</sub>	Turn-on Time	V <sub>GS</sub> =10V; I <sub>D</sub> =2.5A; R <sub>L</sub> =60 Ω		55	90	ns
t <sub>off</sub>	Turn-off Time			110	170	

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