

# isc N-Channel MOSFET Transistor

2SK2183

#### **DESCRIPTION**

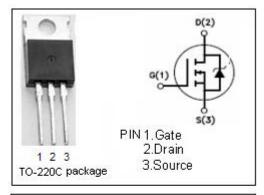
- Drain Current I<sub>D</sub>= 5A@ T<sub>C</sub>=25 °C
- · Drain Source Voltage-
  - : V<sub>DSS</sub>= 500V(Min)
- · Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

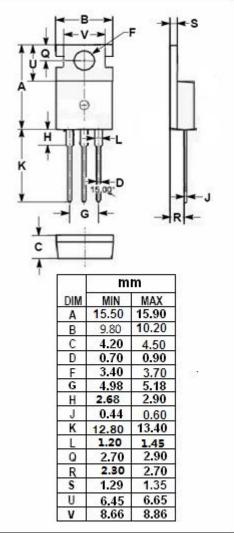


General purpose power amplifier

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	ARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage (V <sub>GS</sub> =0)	500	٧
V <sub>GS</sub>	Gate-Source Voltage	±30	V
I <sub>D</sub>	Drain Current-continuous@ TC=25℃	ain Current-continuous@ TC=25°C 5	
I <sub>D(puls)</sub>	Pulse Drain Current	15	А
P <sub>tot</sub>	Total Dissipation@T <sub>C</sub> =25℃	50	W
Tj	Max. Operating Junction Temperature	150	$^{\circ}$ C
T <sub>stg</sub>	Storage Temperature Range	-55~150	$^{\circ}$





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### • ELECTRICAL CHARACTERISTICS (Tc=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> =0.3mA	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	μΑ
Ciss	Input Capacitance	V <sub>DS</sub> =10V;		580		
Crss	Reverse Transfer Capacitance	V <sub>GS</sub> =0V;		45		pF
Coss	Output Capacitance	f <sub>τ</sub> =1MHz		140		
ton	Turn-on Time	V <sub>GS</sub> =10V;I <sub>D</sub> =2.5A;		55	90	ns
toff	Turn-off Time	R <sub>L</sub> =60 Ω		110	170	110

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