

isc N-Channel MOSFET Transistor

2SK2180

DESCRIPTION

- Drain Current $I_D = 3A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 500V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

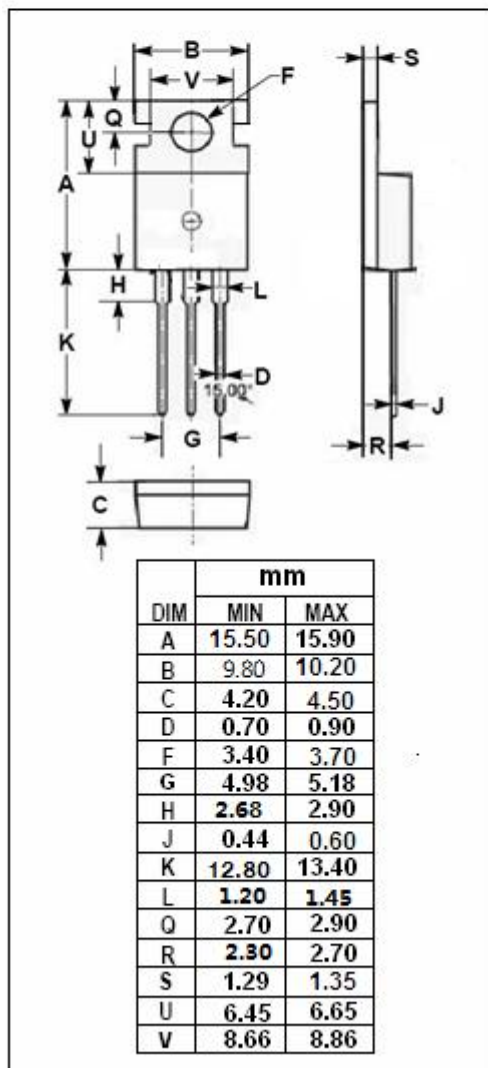
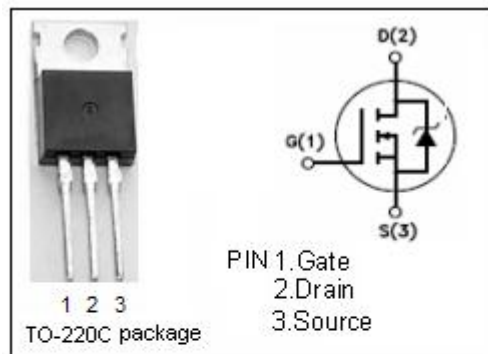
- Switching power amplifier
- High voltage power supply
- Inverter

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	± 30	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	3	A
$I_{D(puls)}$	Pulse Drain Current	9	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	40	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	3.12	$^\circ C/W$



isc N-Channel Mosfet Transistor**2SK2180****• ELECTRICAL CHARACTERISTICS (T_c=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 1mA	500			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = 10V; I _D =0.3mA	2.5	3.0	3.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 1.5A		1.8	2.3	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 500V; V _{GS} = 0			250	μA
V _{SD}	Forward On-Voltage	I _S =1.5A; V _{GS} =0			1.5	V
t _{on}	Turn-on Time	V _{GS} =10V; I _D =1.5A; R _L =100 Ω		45	80	ns
t _{off}	Turn-off Time			90	140	

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