

isc N-Channel MOSFET Transistor

2SK1807

DESCRIPTION

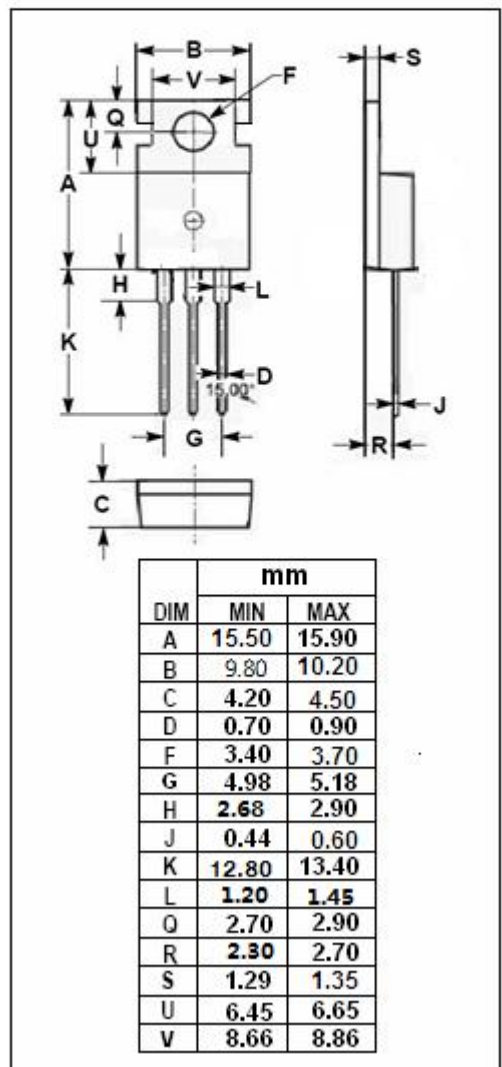
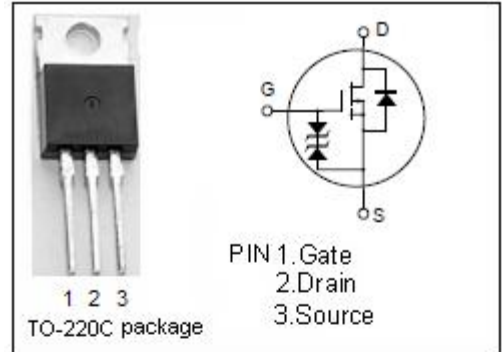
- Drain Current $I_D = 4A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 900V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High Breakdown Voltage

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	900	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	4	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	60	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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• 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 = 10mA	900			V
V _{(BR)GSS}	Gate-Source Breakdown Voltage	V _{DS} = 0; I _G = 100 μ A	± 30			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =1mA	2.0		3.0	V
V _{DF}	Body to drain diode forward voltage	I _S = 4 A, V _{GS} = 0		0.9		V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 2A			4.0	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ± 25V; V _{DS} = 0			± 10	μ A
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 720V; V _{GS} = 0			250	μ A
C _{iss}	Input Capacitance	V _{DS} =10V;		740		pF
C _{rss}	Reverse Transfer Capacitance	V _{GS} =0V;		305		
C _{oss}	Output Capacitance	f _r =1MHz		150		
t _r	Rise Time	V _{GS} =10V;		60		ns
t _{on}	Turn-on Time	I _D =2A;		15		
t _f	Fall Time	V _{DD} =200V;		80		
t _{off}	Turn-off Time	R _L =15Ω		100		

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