

isc N-Channel MOSFET Transistor

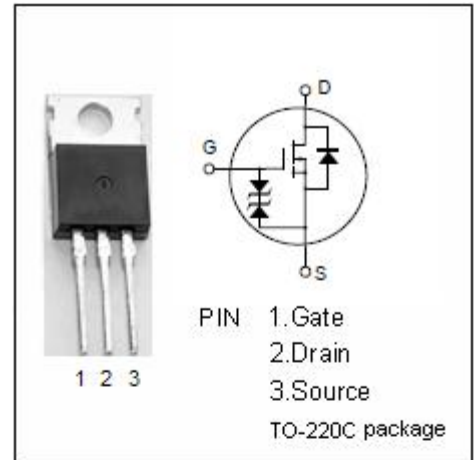
2SK1807

DESCRIPTION

- Drain Current $I_D = 4A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 900V(\text{Min})$
- Fast Switching Speed

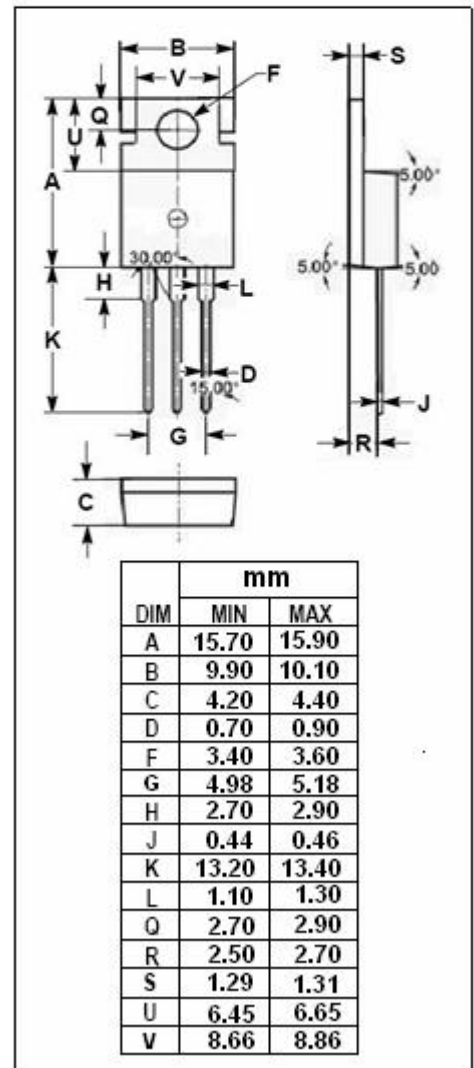
APPLICATIONS

- 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 ($T_C=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=10\text{mA}$	900			V
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	$V_{DS}=0; I_G=100\ \mu\text{A}$	± 30			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=1\text{mA}$	2.0		3.0	V
V_{DF}	Body to drain diode forward voltage	$I_S=4\text{A}, V_{GS}=0$		0.9		V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=2\text{A}$			4.0	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 25\text{V}; V_{DS}=0$			± 10	μA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=720\text{V}; V_{GS}=0$			250	μA
C_{iss}	Input Capacitance	$V_{DS}=10\text{V};$		740		pF
C_{rss}	Reverse Transfer Capacitance	$V_{GS}=0\text{V};$		305		
C_{oss}	Output Capacitance	$f_T=1\text{MHz}$		150		
t_r	Rise Time	$V_{GS}=10\text{V};$		60		ns
t_{on}	Turn-on Time	$I_D=2\text{A};$		15		
t_f	Fall Time	$V_{DD}=200\text{V};$		80		
t_{off}	Turn-off Time	$R_L=15\Omega$		100		