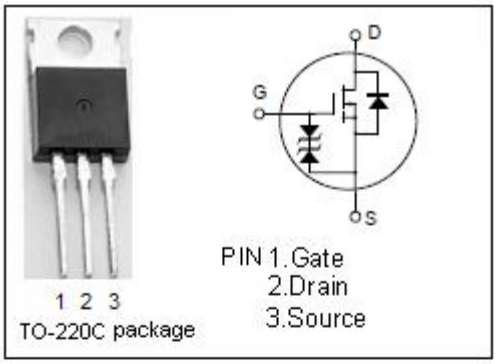
isc N-Channel MOSFET Transistor 2SK1809

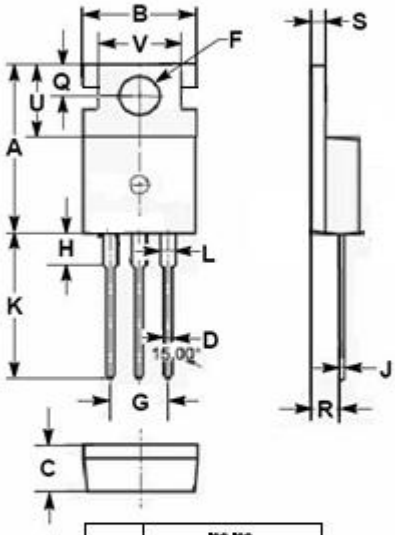


DESCRIPTION

- Drain Current I_D= 5A@ T_C=25℃
- Drain Source Voltage
  : V_{DSS}= 600V(Min)
- Fast Switching Speed
- Low on-resistance
- For switchinggregulator,DC-DC Converter
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High speed power switching



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	600	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-continuous@ T_C=25℃	5	A
P_{tot}	Total Dissipation@T_C=25℃	60	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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• ELECTRICAL CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 10mA	600			V
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	V_{DS}= 0; I_G= 100 μA	±30			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D=1mA	2.0		3.0	V
V_{DF}	Body to drain diode forward voltage	I_S= 5A, V_{GS}= 0		0.9		V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 2.5A			1.5	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±25V;V_{DS}= 0			±10	μA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=500V; V_{GS}= 0			250	μA
C_{iss}	Input capacitance	V_{DS}=10V; V_{GS}=0V; f_T=1MHz		1000		pF
C_{rss}	Reverse transfer capacitance			45		
C_{oss}	Output capacitance			250		
t_r	Rise time	V_{GS}=10V; I_D=2.5A; V_{DD}=200V; R_L=12Ω		45		ns
t_{on}	Turn-on time			12		
t_f	Fall time			55		
t_{off}	Turn-off time			105		

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