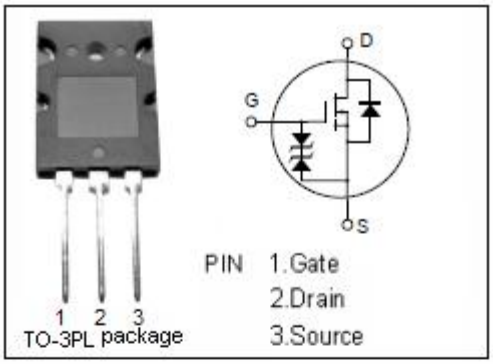
isc N-Channel MOSFET Transistor 2SK1971

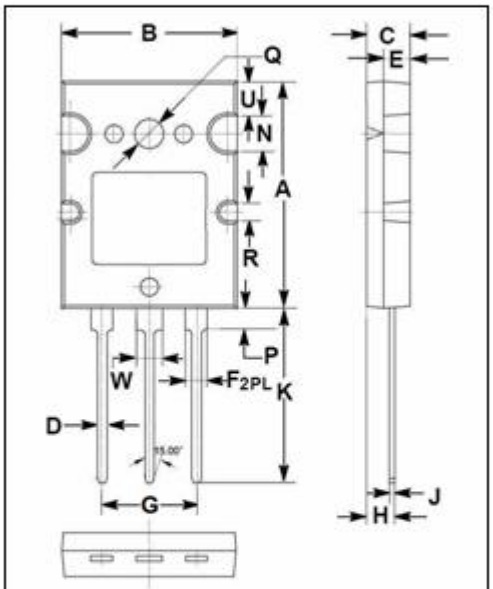


DESCRIPTION

- Drain Current –I_D=35A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 500V(Min)
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Suitable for switching regulator



DIM	mm MIN	MAX
A	25.50	26.50
B	19.80	20.20
C	4.50	5.50
D	0.90	1.10
E	2.80	3.20
F	2.40	2.60
G	10.80	11.00
H	3.10	3.30
J	0.50	0.70
K	20.00	21.00
N	3.90	4.50
P	2.40	2.60
Q	3.10	3.50
R	1.90	2.60
U	3.90	4.10
W	2.90	3.25

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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@ TC=25℃	35	A
P_{tot}	Total Dissipation@TC=25℃	200	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	500			V
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	V_{DS}= 0; I_G= 100 μA	±20			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D=1mA	2		3	V
V_{DF}	Body to drain diode forward voltage	I_F = 35A, V_{GS} = 0		1.1		V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 18A		0.19	0.23	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±25V;V_{DS}= 0			±10	μA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 400V; V_{GS}= 0			250	μA
Ciss	Input capacitance	V_{DS}=10V;V_{GS}=0V; f_T=1MHz		4320		pF
Crss	Reverse transfer capacitance			130		
Coss	Output capacitance			1120		
tr	Rise time	V_{GS}=10V;I_D=5A; V_{DD}=200V; R_L=6Ω		170		ns
ton	Turn-on time			50		
tf	Fall time			130		
toff	Turn-off time			320		

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