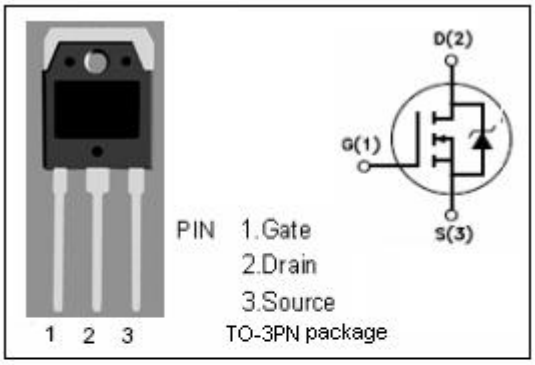
isc N-Channel MOSFET Transistor 2SK1692



DESCRIPTION

- Drain Current –I_D=7A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=900 (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

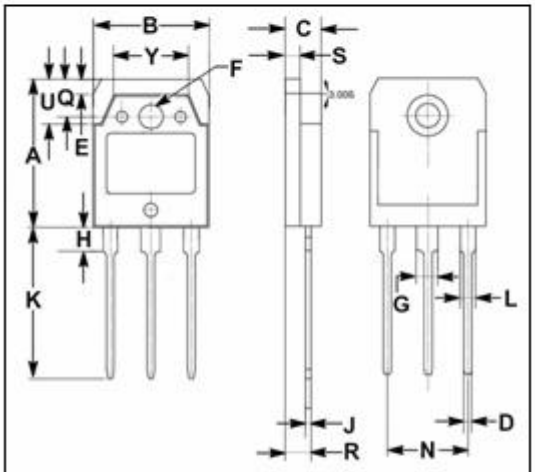
- high speed. high current switching applications.
- DC-DC converter and motor driver applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	900	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-continuous@ TC=25℃	7	A
P_{tot}	Total Dissipation@TC=25℃	125	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth j-c	Thermal Resistance,Junction to Case	0.833	℃/W
Rth j-a	Thermal Resistance,Junction to Ambient	50.00	℃/W



DIM	mm MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

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• **ELECTRICAL CHARACTERISTICS (T_C=25℃)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}=0; I_D= 10mA	900			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=10V; I_D=1mA	1.5		3.5	V
$R_{DS(on)}$	Drain-Source On-stage Resistance	V_{GS}=10V; I_D=3.5A		1.7	2.0	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±25V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=720V; V_{GS}= 0			300	uA
V_{SD}	Diode Forward Voltage	I_F=7A; V_{GS}=0			2.0	V
tr	Rise time	V_{GS}=10V;I_D=3.5A;R_L=110Ω		70		ns
ton	Turn-on time			100		ns
tf	Fall time			100		ns
toff	Turn-off time			360		ns

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