

isc N-Channel MOSFET Transistor

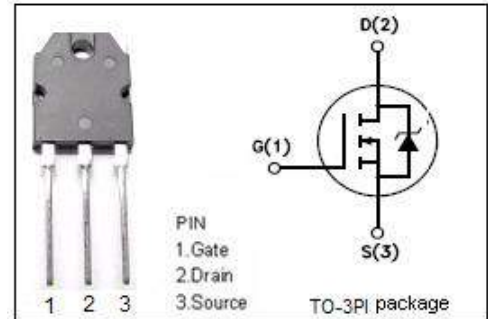
2SK1692

DESCRIPTION

- Drain Current $-I_D=7A @ T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}=900$ (Min)

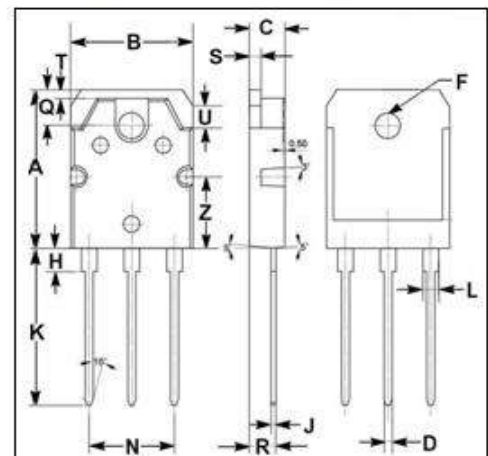
APPLICATIONS

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



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@ $T_C=25^\circ C$	7	A
P_{tot}	Total Dissipation@ $T_C=25^\circ C$	125	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



DIM	mm	
	MIN	MAX
A	19.90	20.10
B	15.50	15.70
C	4.40	4.60
D	0.90	1.10
F	3.20	3.40
H	2.90	3.10
J	0.50	0.70
K	19.90	20.10
L	1.90	2.10
N	10.80	11.00
Q	4.40	4.60
R	3.30	3.35
S	1.40	1.60
T	1.00	1.20
U	2.10	2.30
Z	8.90	9.10

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	0.833	$^\circ C/W$
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	50.00	$^\circ C/W$

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• ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$)

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