

**isc N-Channel MOSFET Transistor**

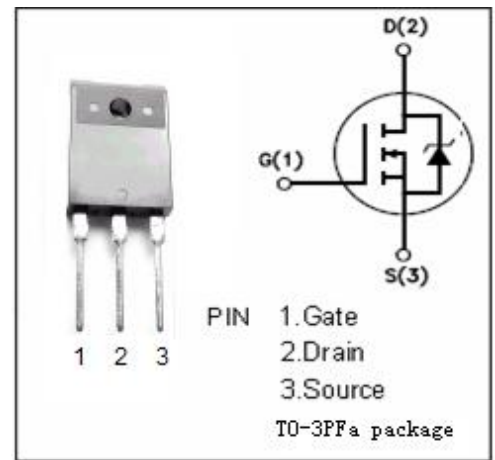
**2SK631**

**FEATURES**

- Drain Current  $-I_D=10A @ T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}= 160V(\text{Min})$

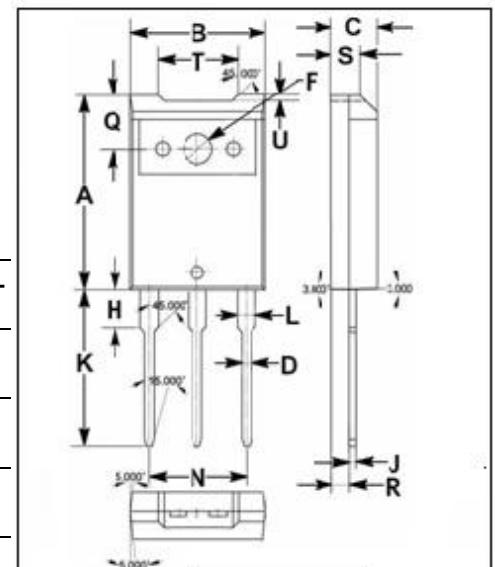
**DESCRIPTION**

- Designed for high voltage, high speed power switching applications such as switching regulators, converters, solenoid and relay drivers.



**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ C$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	160	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 20$	V
$I_D$	Drain Current-Continuous	10	A
$P_D$	Total Dissipation @ $T_C=25^\circ C$	80	W
$T_J$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature	-55~150	$^\circ C$



DIM	mm	
	MIN	MAX
A	20.70	21.30
B	14.70	15.30
C	4.30	5.20
D	0.90	1.10
F	3.20	3.40
H	3.70	4.30
J	0.50	0.70
K	16.40	17.00
L	1.90	2.10
N	10.80	11.00
Q	5.60	6.00
R	1.80	2.20
S	3.10	3.60
T	8.70	9.30
U	0.55	0.75

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.25	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$

**isc N-Channel MOSFET Transistor****2SK631****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=1\text{mA}$	160			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=1\text{mA}$	1.0		5.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=15\text{V}; I_D=5\text{A}$			0.2	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=120\text{V}; V_{GS}=0$			1	$\mu\text{A}$