

## isc N-Channel MOSFET Transistor

2SK1652

## DESCRIPTION

- Drain Current  $-I_D=13A@ T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}=500$  (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

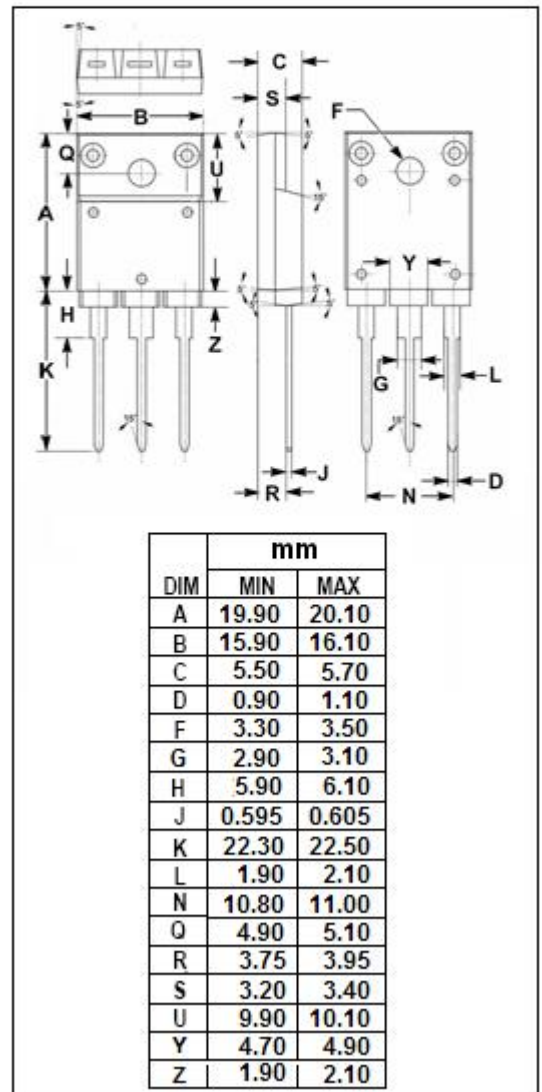
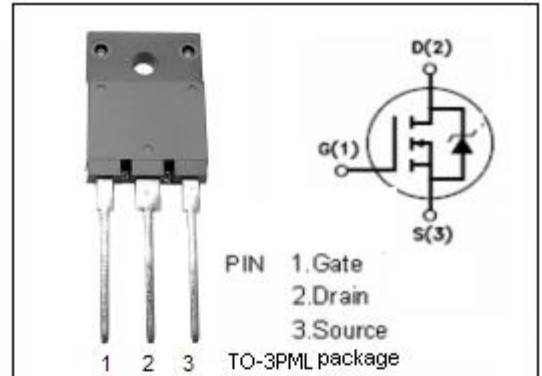
- high voltage, high speed applications, such as switching regulators, converters, solenoid and relay drivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	500	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-continuous@ $T_C=25^\circ C$	13	A
$P_{tot}$	Total Dissipation@ $T_C=25^\circ C$	85	W
$T_j$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$\theta_{j-c}$	Thermal Resistance, Junction to Case	1.25	$^\circ C/W$
$\theta_{j-a}$	Thermal Resistance, Junction to Ambient	35.0	$^\circ C/W$



**isc N-Channel Mosfet Transistor****2SK1652****• ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0; I <sub>D</sub> = 10mA	500			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =10V; I <sub>D</sub> =1mA	2.0	3.0	4.0	V
R <sub>DS(on)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =7A			0.45	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±25V; V <sub>DS</sub> = 0			± 100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =500V; V <sub>GS</sub> = 0			500	uA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> =13A; V <sub>GS</sub> =0			2.0	V

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