

### INCHANGE SEMICONDUCTOR

## isc N-Channel MOSFET Transistor

## 2SK922

#### DESCRIPTION

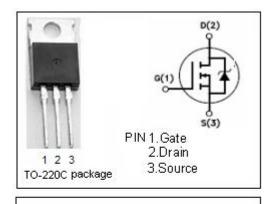
- Drain Current –I\_D= 15A@ T\_C=25 $^\circ\!\!\!\mathrm{C}$
- Drain Source Voltage-: V<sub>DSS</sub>= 120V(Min)
- Static Drain-Source On-Resistance
- :  $R_{DS(on)} = 0.15 \Omega$  (Max)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

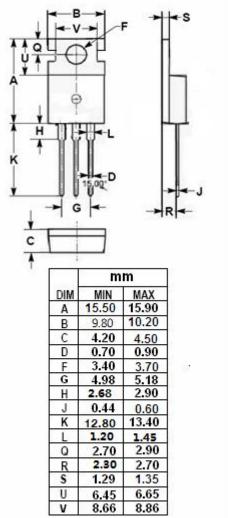
#### APPLICATIONS

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

SYMBOL	PARAMETER	VALUE	UNIT			
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	120				
V <sub>GS</sub>	Gate-Source Voltage	±20	V			
ID	Drain Current-continuous@ TC=25℃	15	А			
P <sub>tot</sub>	Total Dissipation@TC=25°C	60	W			
Tj	Max. Operating Junction Temperature	150	°C			
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C			
THERMAL CHARACTERISTICS						
SYMBOL	PARAMETER	MAX	UNIT			
R <sub>th j-c</sub>	h j-c Thermal Resistance,Junction to Case		°C/W			
R <sub>th j-a</sub>	Rth j-a Thermal Resistance, Junction to Ambient		°C/W			

#### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)







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SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 1mA	120		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =1mA	2	4	V
$R_{\text{DS}(\text{on})}$	Drain-Source On-stage Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> = 9A		0.15	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> =0		±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 120V; V <sub>GS</sub> = 0		500	uA
$V_{\text{SD}}$	Diode Forward Voltage	I <sub>F</sub> = 15A; V <sub>GS</sub> =0		2.0	V



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