

# isc N-Channel MOSFET Transistor

2SK1459

### **DESCRIPTION**

- Drain Current –I<sub>D</sub>=2.5A@ T<sub>C</sub>=25 °C
- Drain Source Voltage-
  - : V<sub>DSS</sub>=900 (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

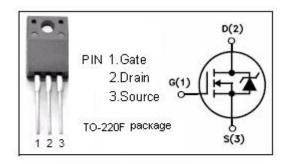


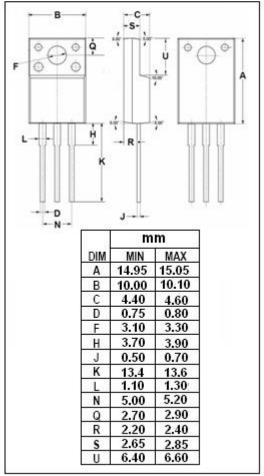
#### **APPLICATIONS**

 Designed especially for high voltage, high speed applications, such as off-line switching power supplies, UPS,AC and DC motor controls, relay and solenoid drivers.



SYMBOL	ARAMETER	VALUE	UNI T
$V_{\text{DSS}}$	Drain-Source Voltage (V <sub>GS</sub> =0)	900	V
$V_{GS}$	Gate-Source Voltage	±30	V
I <sub>D</sub>	Drain Current-continuous@ TC=25℃	2.5	Α
P <sub>tot</sub>	Total Dissipation@TC=25℃	30	W
Tj	Max. Operating Junction Temperature 150		$^{\circ}$
$T_{stg}$	Storage Temperature Range	-55~150	







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### • ELECTRICAL CHARACTERISTICS (Tc=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	900			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =10V; I <sub>D</sub> =1mA	2.0		3.0	V
R <sub>DS(on)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =1.5A		4.7	6.0	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0			±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =900V; V <sub>GS</sub> = 0			1	mA
$V_{SD}$	Diode Forward Voltage	I <sub>F</sub> =2.5A; V <sub>GS</sub> =0			1.8	V
tr	Rise time			25		ns
ton	Turn-on time	V <sub>GS</sub> =10V;I <sub>D</sub> =1.5A;R <sub>L</sub> =50 Ω		40		ns
tf	Fall time			40		ns
toff	Turn-off time			160		ns

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2