

## **INCHANGE SEMICONDUCTOR**

## isc N-Channel MOSFET Transistor

## 2SK259

### DESCRIPTION

- Drain Current –I\_D=5A@ T\_C=25 $^\circ\!\!\mathrm{C}$
- Drain Source Voltage-: V<sub>DSS</sub>= 350V(Min)
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

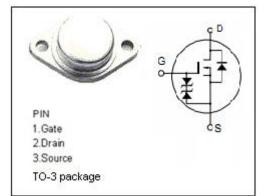
· Designed especially for high voltage, high speed applications

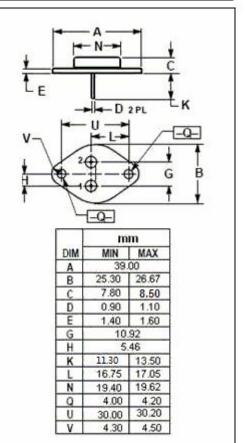
## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	ARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	350	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
ID	Drain Current-continuous@ TC=25°C	5	A
P <sub>tot</sub>	Total Dissipation@TC=25°C	125	W
Tj	Max. Operating Junction Temperature	200	°C
T <sub>stg</sub>	Storage Temperature Range	-65~200	°C

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT	
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.67	°C/W	
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	62.5	°C/W	





### isc website: www.iscsemi.com



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SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	МАХ	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0; I <sub>D</sub> = 10mA	350			V
$V_{GS(TH)}$	Gate Threshold Voltage	V <sub>DS</sub> = 10V <sub>GS</sub> ; I <sub>D</sub> = 10mA	0.4		3.0	V
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = 15V; I <sub>D</sub> = 3A		2.5	3.0	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0			±100	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =280V; V <sub>GS</sub> = 0			1	mA
V <sub>DS(ON)</sub>	Drain-Source Saturation Voltage	I <sub>F</sub> = 3A; V <sub>GS</sub> = 15V		7.5	9.5	V

## • ELECTRICAL CHARACTERISTICS (Tc=25°C)

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