

### **INCHANGE SEMICONDUCTOR**

## isc N-Channel MOSFET Transistor

## STD3NK60ZT4

#### • FEATURES

- With TO-251(IPAK) packaging
- High speed switching
- · Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### APPLICATIONS

- Power supply
- DC-DC converters
- Motor control
- Switching applications

# SYMBOL PARAMETER VALUE V<sub>DSS</sub> Drain-Source Voltage 600

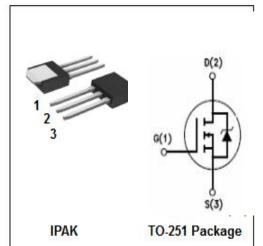
• ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

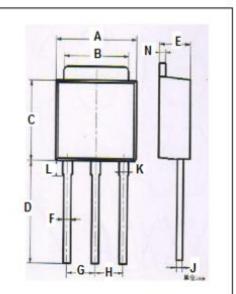
200	J		
V <sub>GSS</sub>	Gate-Source Voltage	±30	V
ID	Drain Current-Continuous	2.4 1.51	А
I <sub>DM</sub>	Drain Current-Single Pulsed	9.6	A
PD	Total Dissipation	45	W
Tj	T <sub>j</sub> Operating Junction Temperature		°C
T <sub>stg</sub>	stg Storage Temperature		°C

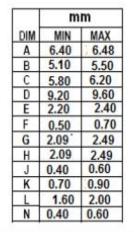
#### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		UNIT	
Rth(ch-c)	Channel-to-case thermal resistance 2.78		°C/W	
Rth(ch-a)	Channel-to-ambient thermal resistance	100	°C/W	

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#### isc website: www.iscsemi.cn

UNIT

V



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#### **ELECTRICAL CHARACTERISTICS**

#### $T_{C}\text{=}25^{\circ}\!\!\!\mathrm{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	МАХ	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 1mA	600			V
V <sub>GS</sub> (th)	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =0.05mA	3.0		4.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =1.2A		3.3	3.6	Ω
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0V			±0.1	μA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 600V; V <sub>GS</sub> = 0V;Tj=25℃ Tj=125℃			1 50	μA
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =2.4A, V <sub>GS</sub> = 0 V			1.6	V

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