

# isc N-Channel MOSFET Transistor

# 2SK2258

#### FEATURES

- With TO-3PN packaging
- · High speed switching
- Standard level gate drive
- · Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



## APPLICATIONS

- Power supply
- · Switching applications

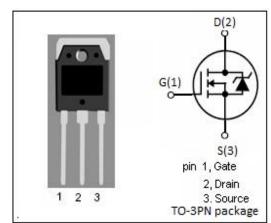


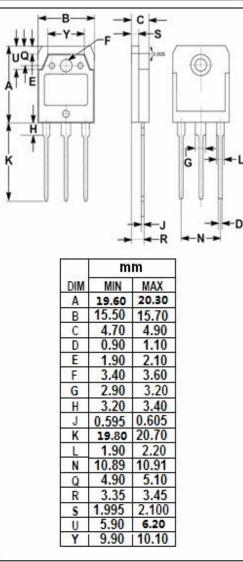
## • ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25 °C)

SYMBOL	PARAMETER VALUE		UNIT
V <sub>DSS</sub>	Drain-Source Voltage	1000	V
V <sub>GSS</sub>	Gate-Source Voltage	±30	V
I <sub>D</sub>	Drain Current-Continuous	4	А
I <sub>DM</sub>	Drain Current-Single Pulsed	16	А
P <sub>D</sub>	Total Dissipation	100	W
Tj	Operating Junction Temperature	-55~150	$^{\circ}\mathbb{C}$
T <sub>stg</sub>	Storage Temperature	-55~150	$^{\circ}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		UNIT	
Rth(ch-c)	Channel-to-case thermal resistance	0.83	°C/W	
Rth(ch-a)	Channel-to-ambient thermal resistance	40	°C/W	







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### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 1mA	1000			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =±30V; I <sub>D</sub> =0.25mA	2.5		3.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =2A		2.7	3.6	Ω
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0V			±0.1	μА
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 1000V; V <sub>GS</sub> = 0v;Tj=25°C Tj=125°C			500 1000	μА
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =4A, V <sub>GS</sub> = 0 V			1.65	V



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