

# isc N-Channel MOSFET Transistor

# **TK14N65W**

#### **FEATURES**

- Low drain-source on-resistance:
  R<sub>D</sub>s(on) ≤0.25Ω.
- Enhancement mode:
  Vth =2.5 to 3.5V (Vps = 10 V, lp=0.69mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### **DESCRITION**

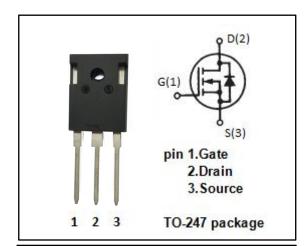
· Switching Voltage Regulators

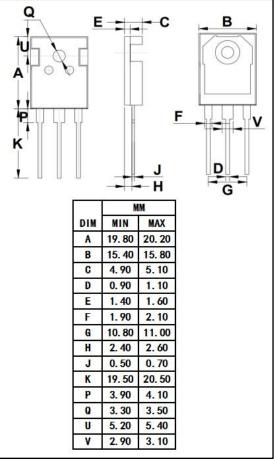
## • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	650	V
V <sub>GS</sub>	Gate-Source Voltage	±30	٧
I <sub>D</sub>	Drain Current-Continuous	13.7	Α
I <sub>DM</sub>	Drain Current-Single Pulsed	54.8	Α
P <sub>D</sub>	Total Dissipation @T <sub>C</sub> =25℃ 130		W
Tj	Max. Operating Junction Temperature	150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature	-55~150	

## • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	0.962	°C/W







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#### **ELECTRICAL CHARACTERISTICS**

Tc=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> =10mA	650			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =10V; I <sub>D</sub> =0.69mA	2.5		3.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =6.9A			0.25	Ω
lgss	Gate-Source Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0V			±1	μА
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =650V; V <sub>GS</sub> = 0V			10	μ <b>A</b>
V <sub>SDF</sub>	Diode forward voltage	I <sub>DR</sub> =13.7A, V <sub>GS</sub> = 0 V			1.7	V

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