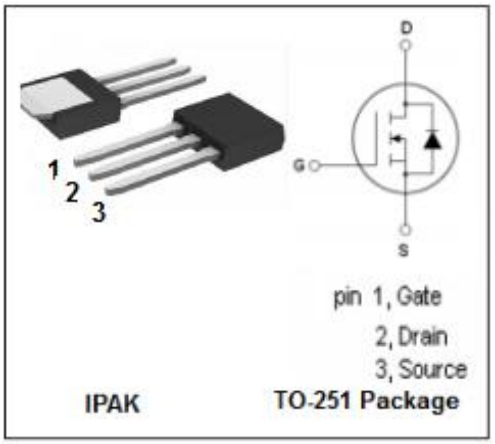
isc N-Channel MOSFET Transistor TK9Q65W，ITK9Q65W

• FEATURES

- Low drain-source on-resistance:
  R_{DS}(on) ≤0.56Ω.
- Enhancement mode:
  Vth =2.5 to 3.5V (V_{DS} = 10 V, I_D=0.35mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

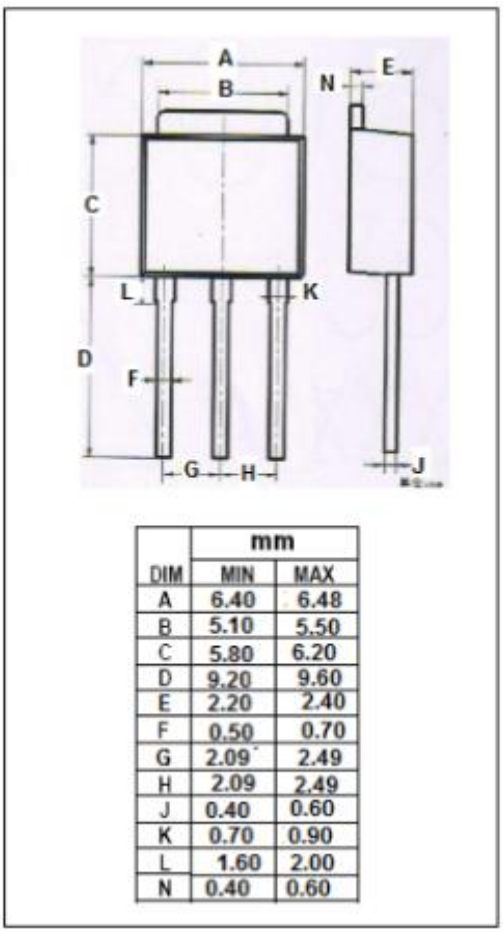


• DESCRITION

- Switching Voltage Regulators

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	9.3	A
I_{DM}	Drain Current-Single Pulsed	37.2	A
P_D	Total Dissipation @T_C=25℃	80	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	MAX
A	6.40	6.48
B	5.10	5.50
C	5.80	6.20
D	9.20	9.60
E	2.20	2.40
F	0.50	0.70
G	2.09	2.49
H	2.09	2.49
J	0.40	0.60
K	0.70	0.90
L	1.60	2.00
N	0.40	0.60

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	1.57	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	125	℃/W

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D=10mA	650			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=10V; I_D=0.35mA	2.5		3.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=4.6A			0.56	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0V			±1	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=650V; V_{GS}= 0V			10	μA
V_{SDF}	Diode forward voltage	I_{DR} =9.3A, V_{GS} = 0 V			1.7	V

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