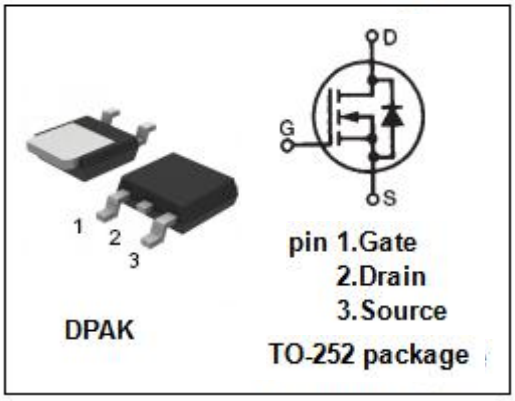
iscN-Channel MOSFET Transistor TK5P50D

- **FEATURES**
- Low drain-source on-resistance:
  R_{DS}(on) = 1.5Ω (MAX)
- Enhancement mode:
  Vth = 2.4 to 4.4V (V_{DS} = 10 V, I_D=1.0mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



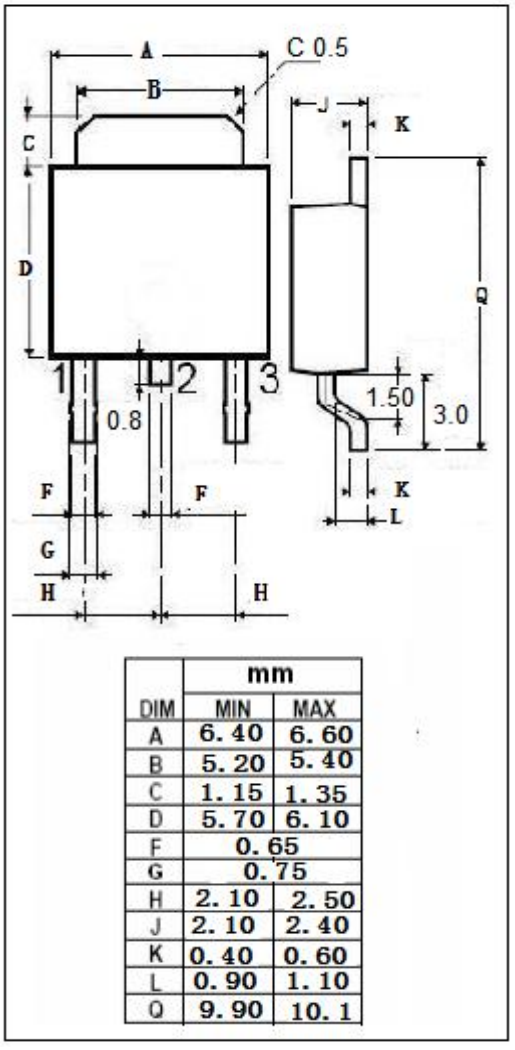
- **DESCRITION**
- Switching Voltage Regulators

- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	5	A
I_{DM}	Drain Current-Single Pulsed	20	A
P_D	Total Dissipation @T_C=25℃	80	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	1.56	℃/W



DIM	mm MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

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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	500			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D=1.0mA	2.4		4.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=2.5A			1.5	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0V			±1	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=500V; V_{GS}= 0V			10	μA
V_{SDF}	Diode forward voltage	I_{DR} =5A, V_{GS} = 0 V			1.7	V