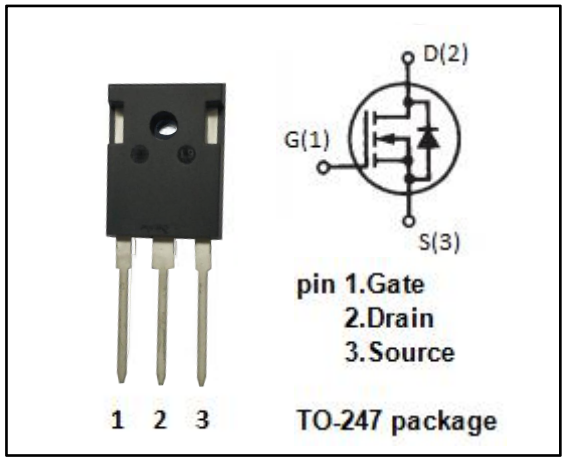
isc N-Channel MOSFET Transistor TK39N60X

• FEATURES

- Low drain-source on-resistance:
  R_{DS}(on) ≤0.065Ω.
- Enhancement mode:
  Vth =2.7 to 3.7V (V_{DS} = 10 V, I_D=1.9mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



• DESCRITION

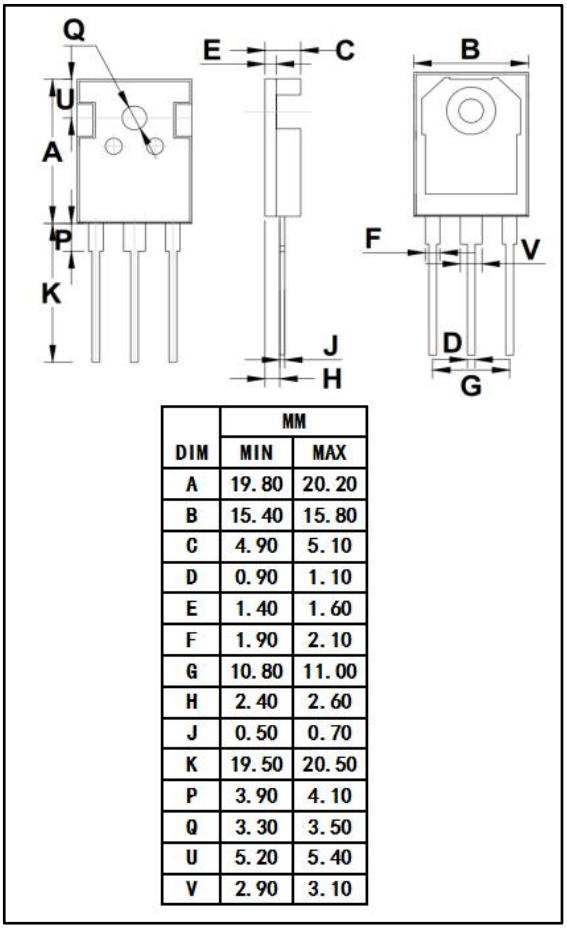
- Switching Voltage Regulators

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	38.8	A
I_{DM}	Drain Current-Single Pulsed	155	A
P_D	Total Dissipation @T_C=25℃	270	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	0.463	℃/W



DIM	MM MIN	MM MAX
A	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10

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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	600			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=10V; I_D=1.9mA	2.5		3.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=12.5A			65	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0V			±1	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=600V; V_{GS}= 0V			100	uA
V_{SDF}	Diode forward voltage	I_{DR} =38.8A, V_{GS} = 0 V			1.7	V

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