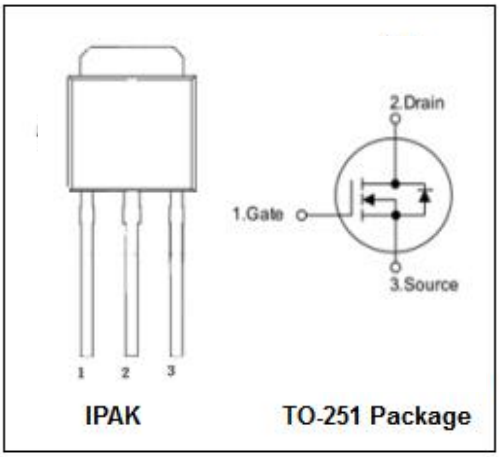
isc N-Channel MOSFET Transistor IRFU120



• FEATURES

- Static drain-source on-resistance:
  $R_{DS}(on) \leqslant 0.27\Omega$
- Enhancement mode
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRITION

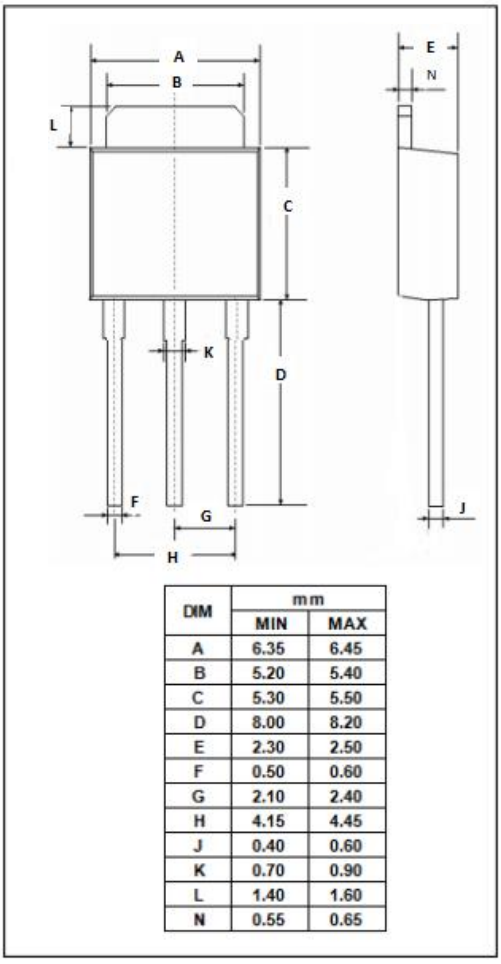
- Power factor correction
- Switched mode power supplies

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	7.7	A
I_{DM}	Drain Current-Single Pulsed	31	A
P_D	Total Dissipation @T_C=25℃	42	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(j-c)	Channel-to-case thermal resistance	2.98	℃/W



DIM	mm	
	MIN	MAX
A	6.35	6.45
B	5.20	5.40
C	5.30	5.50
D	8.00	8.20
E	2.30	2.50
F	0.50	0.60
G	2.10	2.40
H	4.15	4.45
J	0.40	0.60
K	0.70	0.90
L	1.40	1.60
N	0.55	0.65

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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=250 μA	100			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D=250 μA	2		4	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=4.6A			0.27	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V; V_{DS}=0V			±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=100V; V_{GS}= 0V			25	μA
		V_{DS}=80V; V_{GS}= 0V; T_j=125℃			250	
V_{SD}	Diode forward voltage	I_{SD}= 7.7A, V_{GS} = 0V			2.5	V

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