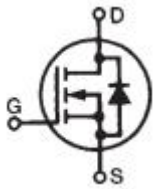
isc N-Channel MOSFET Transistor R6007ENX

FEATURES

- Drain Current –I_D= 7A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=600V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 620mΩ (Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

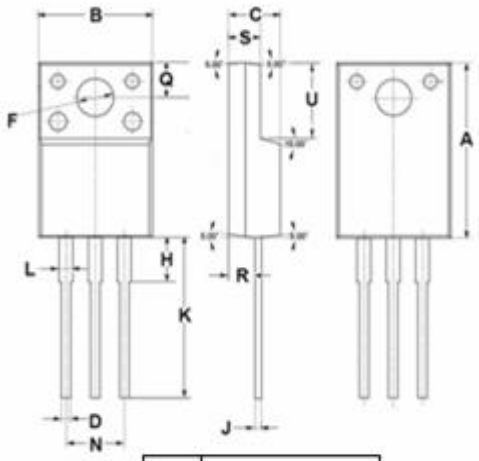


pin 1.Gate
2.Drain
3.Source

TO-220F package

DESCRIPTION

- Designed for use in switch mode power supplies and general purpose applications.



DIM	mm MIN	mm MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage-Continuous	±20	V
I_D	Drain Current-Continuous	7	A
I_{DM}	Drain Current-Single Pluse	14	A
P_D	Total Dissipation @T_C=25℃	46	W
T_J	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	2.7	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 1mA	600		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=135uA	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 2.4A		620	mΩ
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0		±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 600V; V_{GS}= 0 V_{DS}= 600V; V_{GS}= 0@T_J=125℃		100 1000	μA
V_{SD}	Forward On-Voltage	I_S= 7A; V_{GS}= 0		1.5	V

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