KEC

SEMICONDUCTOR
TECHNICAL DATA

KF7N60P/F
N CHANNEL MOS FIELD EFFECT TRANSISTOR

General Description

This planar stripe MOSFET has better characteristics, such as fast switching time, low on resistance, low gate charge and excellent avalanche characteristics. It is mainly suitable for active power factor correction and switching mode power supplies.

FEATURES

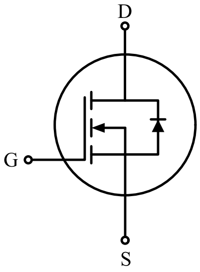
- V_{DSS}=600V, I_D=7A
- Drain-Source ON Resistance :
  $R_{DS(ON)}$(Max)=1.2Ω @V_{GS}=10V
- Qg(typ.)= 19nC

MAXIMUM RATING (Tc=25℃)

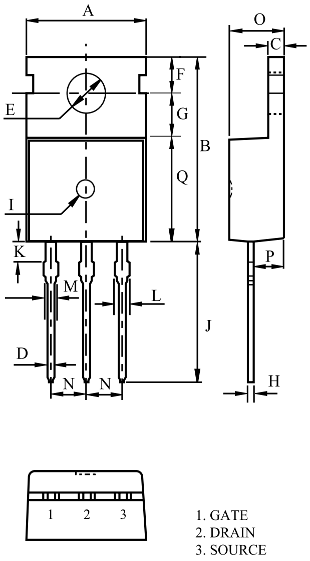
CHARACTERISTIC		SYMBOL	RATING		UNIT
			KF7N60P	KF7N60F	
Drain-Source Voltage		V_{DSS}	600		V
Gate-Source Voltage		V_{GSS}	±30		V
Drain Current	@T_C=25℃	I_D	7	7*	A
	@T_C=100℃		4	4*	
	Pulsed (Note1)	I_{DP}	20	20*	
Single Pulsed Avalanche Energy (Note 2)		E_{AS}	210		mJ
Repetitive Avalanche Energy (Note 1)		E_{AR}	11		mJ
Peak Diode Recovery dv/dt (Note 3)		dv/dt	4.5		V/ns
Drain Power Dissipation	Tc=25℃	P_D	108	44.6	W
	Derate above 25℃		0.87	0.36	W/℃
Maximum Junction Temperature		T_j	150		℃
Storage Temperature Range		T_{stg}	-55～150		℃
Thermal Characteristics					
Thermal Resistance, Junction-to-Case		R_{thJC}	1.15	2.8	℃/W
Thermal Resistance, Junction-to-Ambient		R_{thJA}	62.5	62.5	℃/W

* : Drain current limited by maximum junction temperature.

PIN CONNECTION



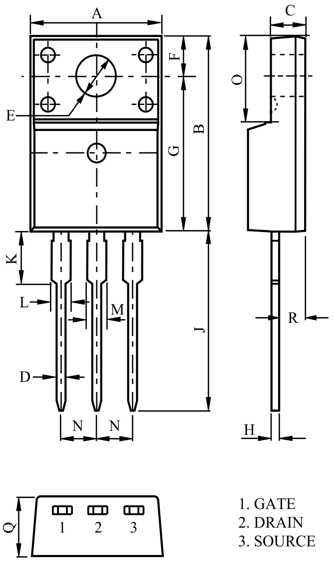
KF7N60P



DIM	MILLIMETERS
A	9.9 ± 0.2
B	15.95 MAX
C	1.3+0.1/-0.05
D	0.8 ± 0.1
E	ø3.6 ± 0.2
F	2.8 ± 0.1
G	3.7
H	0.5+0.1/-0.05
I	ø1.5
J	13.08 ± 0.3
K	1.46
L	1.4 ±0.1
M	1.27 ± 0.1
N	2.54 ±0.2
O	4.5 ± 0.2
P	2.4 ±0.2
Q	9.2 ±0.2

TO-220AB

KF7N60F



DIM	MILLIMETERS
A	10.16 ± 0.2
B	15.87 ± 0.2
C	2.54 ± 0.2
D	0.8 ± 0.1
E	ø3.18 ± 0.1
F	3.3 ± 0.1
G	12.57 ± 0.2
H	0.5 ± 0.1
J	13.0 ± 0.5
K	3.23 ± 0.1
L	1.47 MAX
M	1.47 MAX
N	2.54 ± 0.2
O	6.68 ± 0.2
Q	4.7 ± 0.2
R	2.76 ± 0.2

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