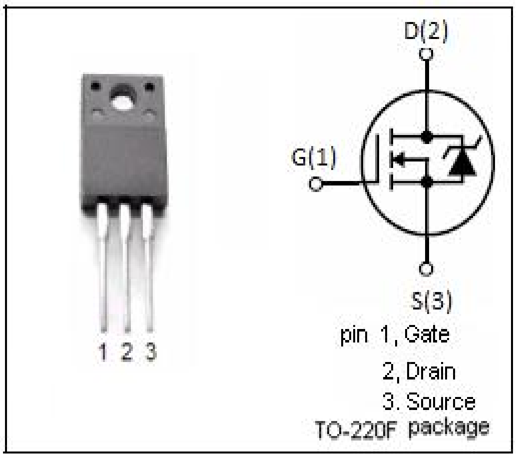
Isc N-Channel MOSFET Transistor STP6NK90ZFP

• FEATURES

- Typical $R_{DS}(on)$=1.56Ω
- With low gate drive requirements
- Easy to drive
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

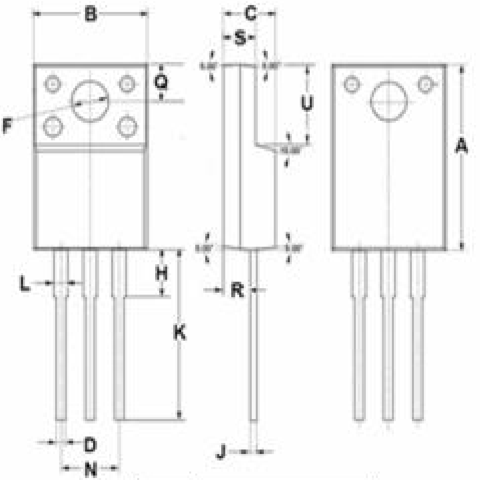


• APPLICATIONS

- Ideal for off-line powersupplies adaptors and PFC
- Lighting
- High current，high speed switching

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	900	V
V_{GSS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous@T_C=25℃ T_C=100℃	5.8 3.65	A
I_{DM}	Drain Current-Single Pulsed	23.2	A
P_D	Total Dissipation	30	W
T_j	Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃



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

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	4.2	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	62.5	℃/W

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= 1mA	900			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=±30V; I_D=0.1mA	3		4.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=2.9A		1.56	2	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}= 0V			±10	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 900V; V_{GS}= 0V; T_J=25℃ T_J=125℃			1 50	μA
V_{SDF}	Diode forward voltage	I_{SD}=5.8A, V_{GS} = 0 V			1.6	V