

isc N-Channel MOSFET Transistor

STP6NK60ZFP

DESCRIPTION

- Drain Current $I_D = 6A @ T_C = 25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS} = 600V (Min)$
- Fast Switching Speed

APPLICATIONS

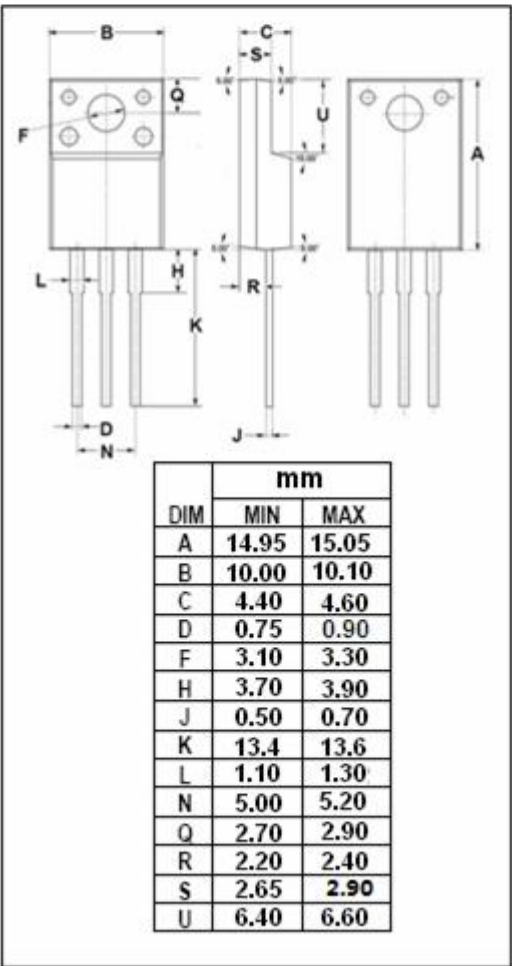
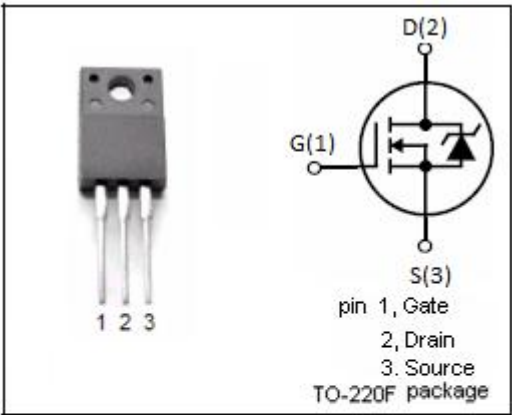
- Designed for high speed switching applications in switching power supplies and adaptors

ABSOLUTE MAXIMUM RATINGS($T_C = 25^{\circ}C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	600	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C = 25^{\circ}C$	6	A
$I_{D(puls)}$	Pulse Drain Current	24	A
P_{tot}	Total Dissipation@ $T_C = 25^{\circ}C$	32	W
T_j	Max. Operating Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	4.2	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^{\circ}C/W$



isc N-Channel MOSFET Transistor**STP6NK60ZFP**• ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=0.25\text{mA}$	600			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=250\mu\text{A}$	2.0		4.0	V
V_{SD}	Diode Forward On-Voltage	$I_S=6\text{A}$; $V_{GS}=0$			1.6	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=3\text{A}$			1.2	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}$; $V_{DS}=0$			± 10	μA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=600\text{V}$; $V_{GS}=0$			1	μA