

isc N-Channel MOSFET Transistor

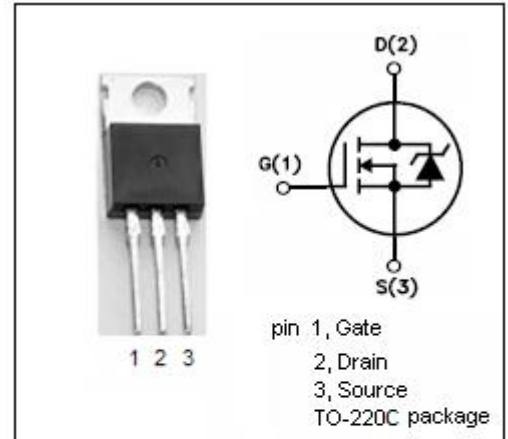
STP6NK60Z

DESCRIPTION

- Drain Current $I_D = 6A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 600V(\text{Min})$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

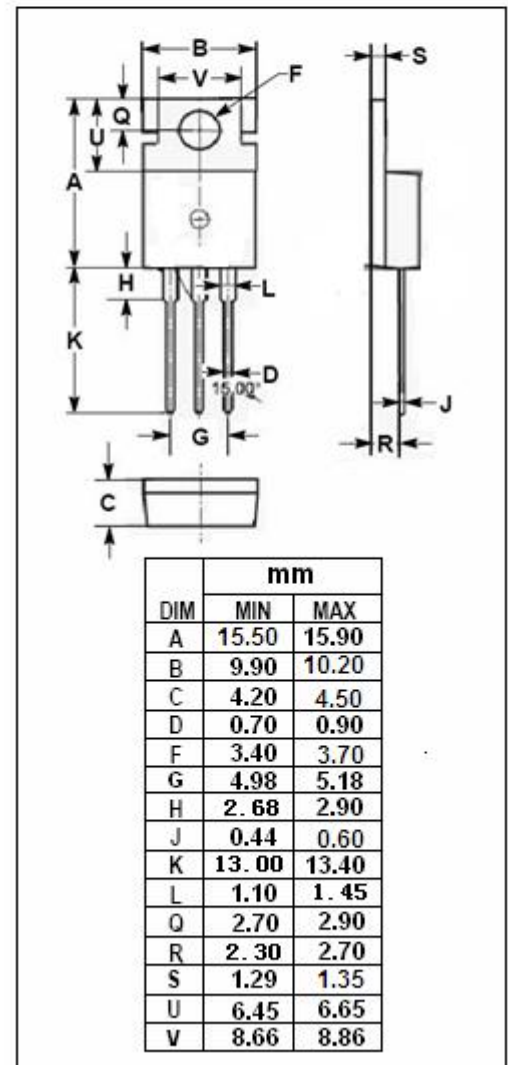


ABSOLUTE MAXIMUM RATINGS($T_C = 25^\circ C$)

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@ $T_C = 25^\circ C$ $T_C = 100^\circ C$	6 3.8	A
$I_{D(puls)}$	Pulse Drain Current	24	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	110	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	1.14	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =0.25mA	600			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250uA	3.0		4.5	V
V _{SD}	Diode Forward On-Voltage	I _S =6A; V _{GS} = 0			1.6	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =3A		1	1.2	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0			± 10	uA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 600V; V _{GS} = 0 T _J =25°C T _J =125°C			1 50	μA

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