

isc N-Channel MOSFET Transistor

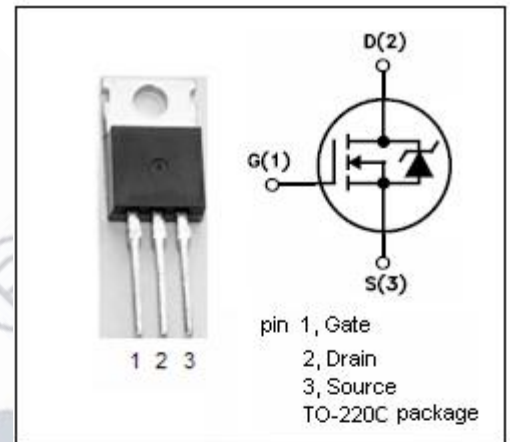
5N60

• DESCRIPTION

- Drain Current $I_D = 5.6A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 600V(\text{Min})$
- Fast Switching Speed

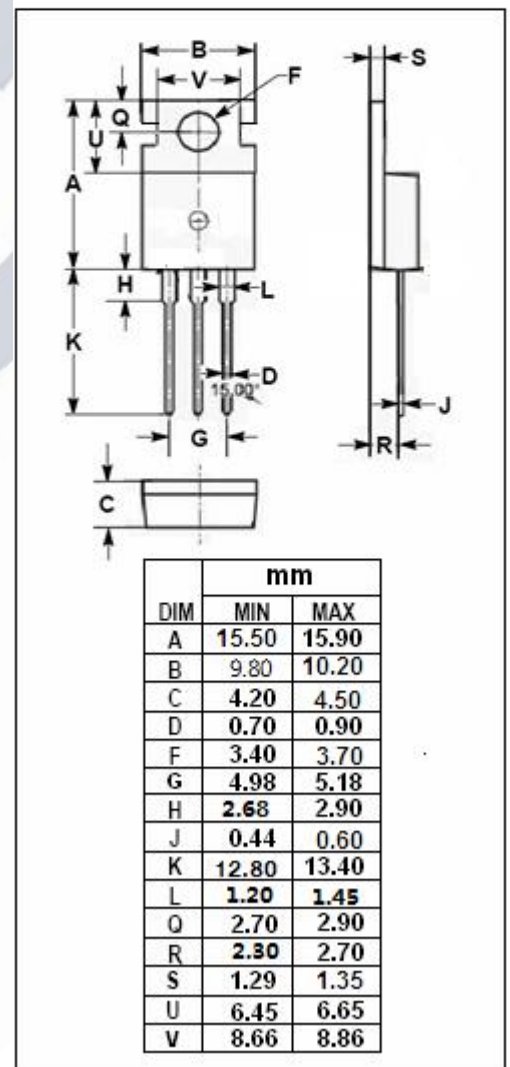
• APPLICATIONS

- AC Adapter, Battery Charge and SMPS



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@ $T_C = 25^\circ C$	5.6	A
$I_{D(puls)}$	Pulse Drain Current	20	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	100	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	1.67	$^\circ C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$

isc N-Channel MOSFET Transistor**5N60****• 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 = 250μA	600			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250μA	2.0		4.0	V
V _{SD}	Diode Forward On-Voltage	I _S =5.6A; V _{GS} = 0			1.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =2.5A			1.5	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 600V; V _{GS} = 0			10	μA

SWITCHING CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
T _{d(on)}	Turn-on Delay Time	V _{DD} =300V, I _D =5A R _G =25Ω			15.8	ns
Tr	Rise Time				15.2	ns
T _{d(off)}	Turn-off Delay Time				46	ns
T _f	Fall Time				18.2	ns