

isc N-Channel MOSFET Transistor

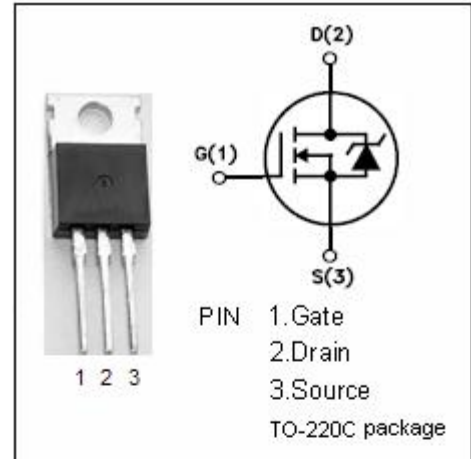
18N20

• DESCRIPTION

- Drain Current  $I_D = 18A @ T_C = 25^\circ C$
- Drain Source Voltage  
:  $V_{DSS} = 200V (Min)$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.092 \Omega (Max)$
- Fast Switching

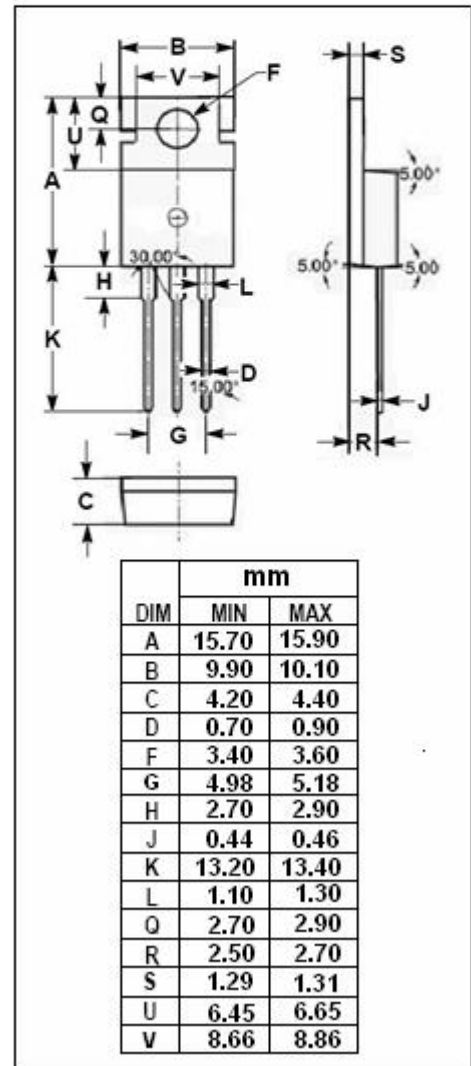
• APPLICATIONS

- Switch regulators
- Switching converters, motor drivers, relay drivers



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	200	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 20$	V
$I_D$	Drain Current-Continuous	18	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	57	W
$T_j$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature	-55~150	$^\circ C$



**isc N-Channel MOSFET Transistor****18N20****• ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=1\text{mA}$	200			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=250\mu\text{A}$	1.0		3.0	V
$V_{SD}$	Diode Forward On-voltage	$I_S=18\text{A}; V_{GS}=0$			1.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=10\text{A}$			0.092	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=160\text{V}; V_{GS}=0$			250	$\mu\text{A}$