

isc N-Channel MOSFET Transistor

30N05

• FEATURES

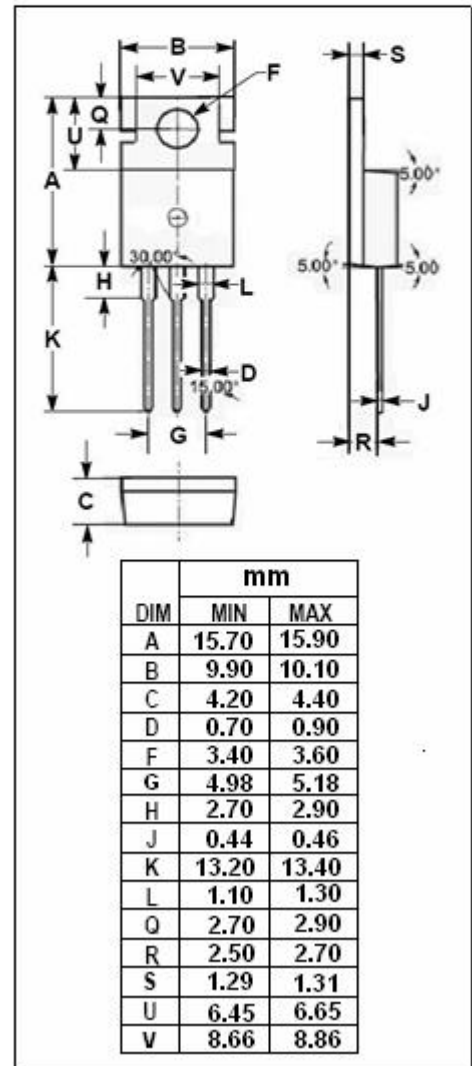
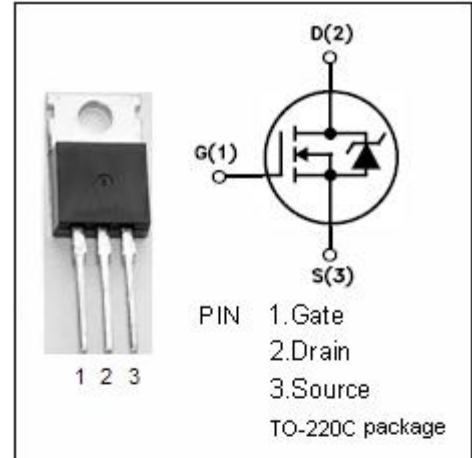
- Drain Current  $I_D = 30A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 50V (Min)$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.05 \Omega (Max)$
- Fast Switching

• APPLICATIONS

- Switching power supplies, converters, AC and DC motor controls

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	50	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 30$	V
$I_D$	Drain Current-Continuous	30	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	105	W
$T_j$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature	-55~150	$^\circ C$



**isc N-Channel MOSFET Transistor****30N05****• 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	$V_{GS}=0; I_D=250\mu\text{A}$	50			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	$I_S=30\text{A}; V_{GS}=0$			1.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=15\text{A}$			0.05	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}; V_{DS}=0$			$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=50\text{V}; V_{GS}=0$			200	$\mu\text{A}$