

isc N-Channel MOSFET Transistor

NDD02N40-1

FEATURES

- Drain Current $-I_D = 1.7A @ T_C = 25^\circ C$
- Drain Source Voltage $-V_{DSS} = 400V(\text{Min})$
- Static Drain-Source On-Resistance
 $-R_{DS(on)} = 5.5\Omega(\text{Max}) @ V_{GS} = 10V$

DESCRIPTION

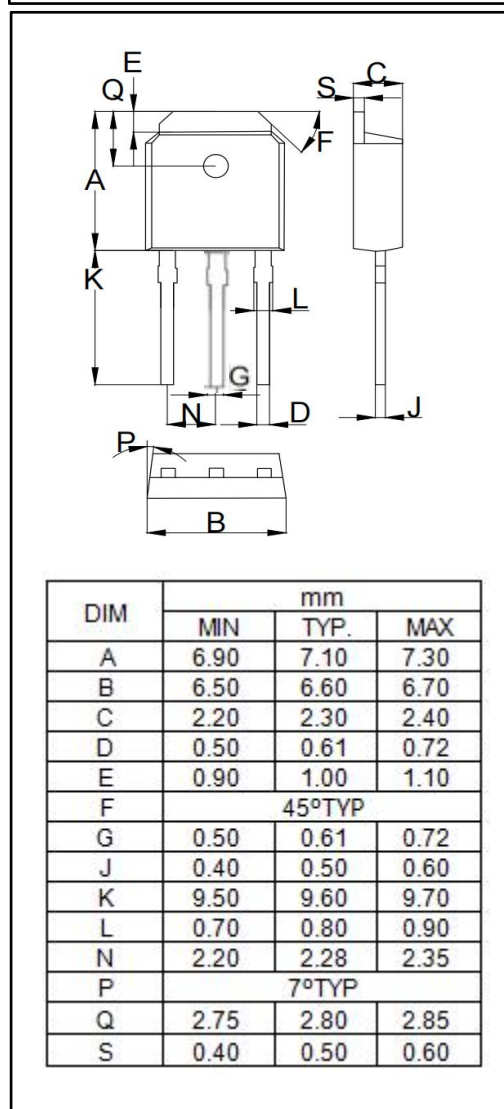
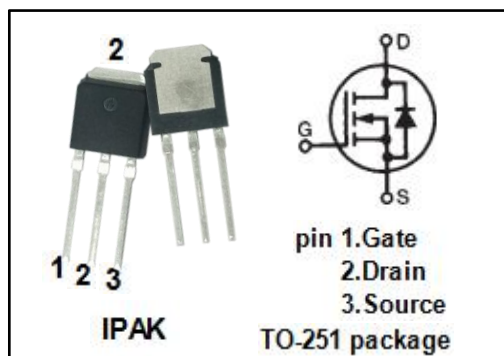
- Motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	400	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	1.7	A
I_{DM}	Drain Current-Single Pluse	6.9	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	39	W
T_J	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	3.2	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=1\text{mA}$	400	--	V
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=400\text{V}$; $V_{GS}=0$	--	1	μA
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}$; $V_{DS}=0$	--	± 10	μA
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=0.25\text{mA}$	0.8	2.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=0.22\text{A}$	--	5.5	Ω
V_{SD}	Forward On-Voltage	$I_S=1.7\text{A}$; $V_{GS}=0$	--	1.6	V

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