

isc N-Channel MOSFET Transistor

NDD05N50Z-1

FEATURES

- Drain Current $-I_D = 4.7A @ T_C = 25^\circ C$
- Drain Source Voltage $-V_{DSS} = 500V(\text{Min})$
- Static Drain-Source On-Resistance
 $-R_{DS(on)} = 1.5\Omega(\text{Max}) @ V_{GS} = 10V$

DESCRIPTION

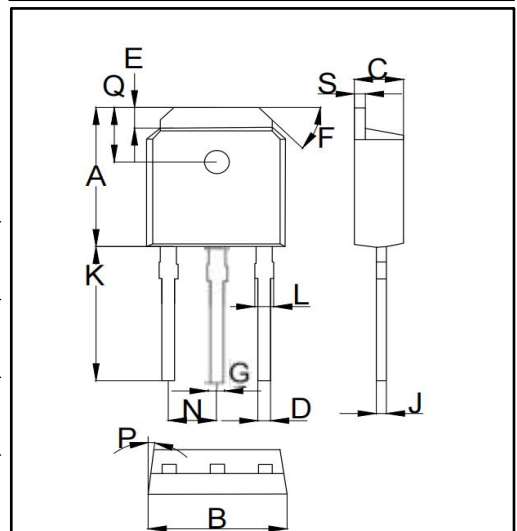
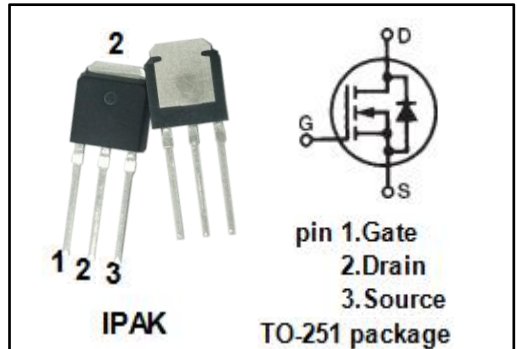
- Motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	4.7	A
I_{DM}	Drain Current-Single Pluse	19	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	83	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	1.5	$^\circ C/W$



DIM	mm		
	MIN	TYP.	MAX
A	6.90	7.10	7.30
B	6.50	6.60	6.70
C	2.20	2.30	2.40
D	0.50	0.61	0.72
E	0.90	1.00	1.10
F	45° TYP		
G	0.50	0.61	0.72
J	0.40	0.50	0.60
K	9.50	9.60	9.70
L	0.70	0.80	0.90
N	2.20	2.28	2.35
P	7° TYP		
Q	2.75	2.80	2.85
S	0.40	0.50	0.60

isc N-Channel MOSFET Transistor**NDD05N50Z-1****ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 1mA	500	--	V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 500V; V _{GS} = 0	--	1	uA
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0	--	±10	uA
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 0.05mA	3.0	4.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 2.2A	--	1.5	Ω
V _{SD}	Forward On-Voltage	I _S = 5A; V _{GS} = 0	--	1.6	V

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