

**isc N-Channel MOSFET Transistor**
**NDD60N745U1**
**FEATURES**

- Drain Current  $-I_D = 6.6A @ T_C = 25^\circ C$
- Drain Source Voltage  $-V_{DSS} = 600V(\text{Min})$
- Static Drain-Source On-Resistance  
 $-R_{DS(on)} = 0.745\Omega(\text{Max}) @ V_{GS} = 10V$

**DESCRIPTION**

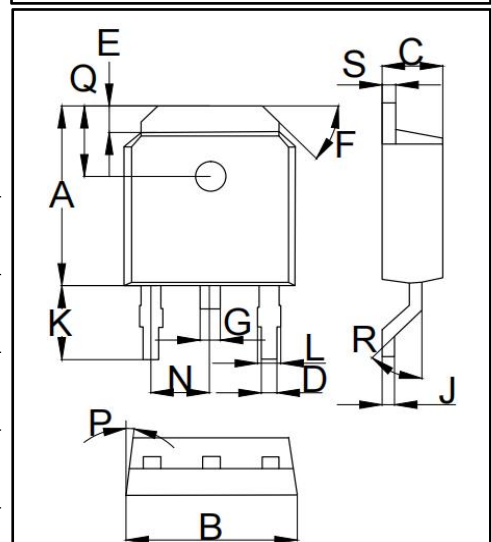
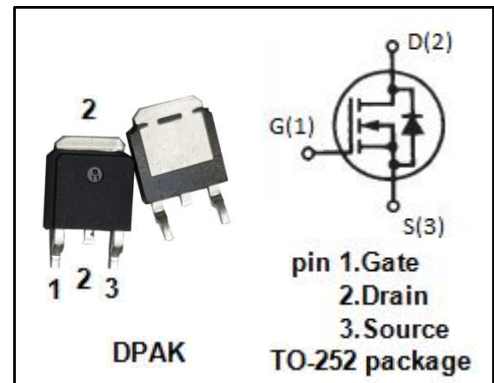
- Motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	600	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 25$	V
$I_D$	Drain Current-Continuous	6.6	A
$I_{DM}$	Drain Current-Single Pulse	27	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	84	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	0.60	0.72
E	0.90	1.00	1.10
F	45°		
G	0.70	0.80	0.90
J	0.40	0.50	0.60
K	2.85	3.15	3.50
L	0.70	0.80	0.90
N	2.20	2.28	2.35
P	7°		
Q	2.75	2.80	2.85
R	50°		
S	0.40	0.50	0.60

## isc N-Channel MOSFET Transistor

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ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 1mA	600	--	V
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 600V; V <sub>GS</sub> = 0	--	1	uA
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0	--	±100	nA
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 0.25mA	2.0	4.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 3.25A	--	0.745	Ω
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> = 6.6A; V <sub>GS</sub> = 0	--	1.6	V

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