

isc N-Channel MOSFET Transistor
NDBA170N06A
FEATURES

- Drain Current - $I_D = 170A @ T_C = 25^\circ C$
- Drain Source Voltage - $V_{DSS} = 60V(\text{Min})$
- Static Drain-Source On-Resistance
- $R_{DS(on)} = 3.3m\Omega(\text{Max}) @ V_{GS} = 10V$

DESCRIPTION

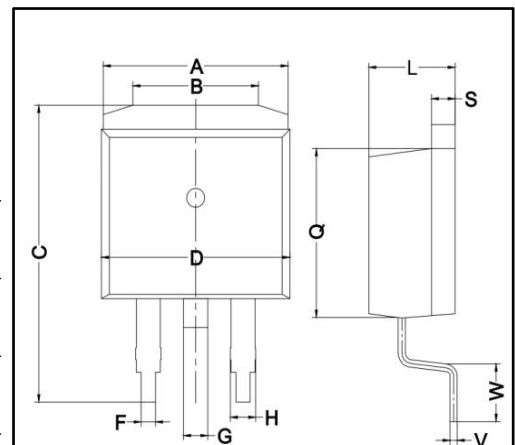
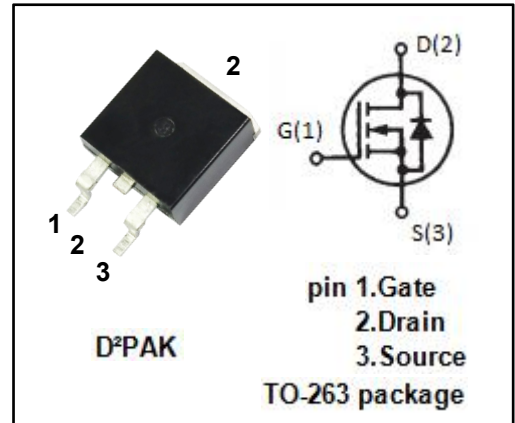
- Motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	170	A
I_{DM}	Drain Current-Single Pulse	600	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	90	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	1.39	$^\circ C/W$



DIM	mm		
	MIN	TYP.	MAX
A	9.80	10.00	10.20
B	6.60	6.70	6.80
C	15.10	15.20	15.30
D	9.60	9.80	10.00
F	0.70	0.80	0.90
G	1.26	1.28	1.30
H	1.20	1.33	1.45
L	4.40	4.50	4.60
Q	9.20	9.25	9.30
S	1.25	1.30	1.35
V	0.40	0.50	0.60
W	2.60	2.70	2.80

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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	60	--	V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 60V; V _{GS} = 0	--	10	uA
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0	--	±200	nA
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 1mA	1.2	2.6	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 50A	--	3.3	mΩ
V _{SD}	Forward On-Voltage	I _S = 100A; V _{GS} = 0	--	1.2	V

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