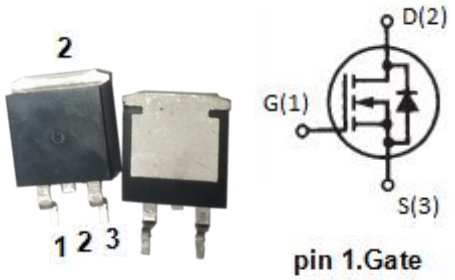
isc N-Channel MOSFET Transistor STB40NF20

FEATURES

- Drain Current : I_D= 40A@ T_C=25℃
- Drain Source Voltage
  : V_{DSS}= 200V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 45mΩ(Max) @ V_{GS}= 10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



D²PAK

pin 1.Gate
2.Drain
3.Source
TO-263 package

DESCRIPTION

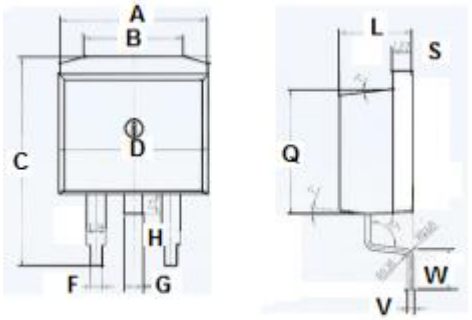
- motor drive, DC-DC converter, power switch and solenoid drive.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	200	V
V_{GS}	Gate-Source Voltage-Continuous	±20	V
I_D	Drain Current-Continuous	40	A
I_{DM}	Drain Current-Single Pluse	160	A
P_D	Total Dissipation @T_C=25℃	160	W
T_J	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.78	℃/W



DIM	mm	
	MIN	MAX
A	9.8	10.2
B	6.6	6.8
C	15.1	15.3
D	9.6	10
F	0.7	0.9
G	1.26	1.3
H	1.2	1.45
L	4.4	4.6
Q	9.2	9.3
S	1.25	1.35
V	0.4	0.6
W	2.6	2.8

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 1mA	200	-	V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 0.25mA	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 20A	-	45	mΩ
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0	-	±0.1	uA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 200V; V_{GS}= 0	-	1	uA
V_{SD}	Forward On-Voltage	I_S= 20A; V_{GS}= 0	-	1.5	V