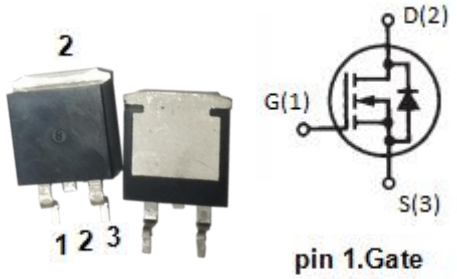
isc N-Channel MOSFET Transistor STB12NK80Z

DESCRIPTION

- Drain Current : I_D= 10.5A@ T_C=25℃
- Drain Source Voltage
  : V_{DSS}= 800V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 0.75Ω (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

APPLICATIONS

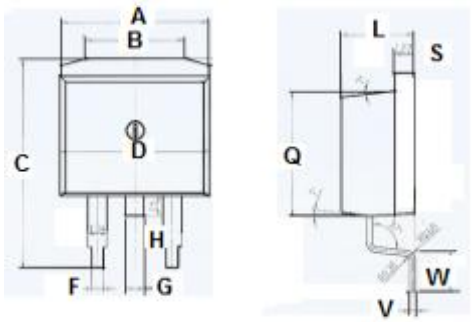
- motor drive, DC-DC converter, power switch and solenoid drive.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	800	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-continuous@ TC=25℃	10.5	A
I_{DM}	Drain Current-Single Pulsed	42	A
P_{tot}	Total Dissipation@TC=25℃	190	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.66	℃/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℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 1mA	800	--	V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 0.1mA	3.0	4.5	V
$R_{DS(on)}$	Drain-Source On-stage Resistance	V_{GS}= 10V; I_D= 5.25A	--	0.75	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0	--	±10	uA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 800V; V_{GS}= 0	--	1.0	uA
V_{SD}	Forward On-Voltage	I_S= 10.5A; V_{GS}= 0	--	1.6	V