

isc N-Channel MOSFET Transistor

FDB5800

FEATURES

- Drain Current : $I_D=14A@ T_C=25^\circ C$
- Drain Source Voltage
: $V_{DSS}= 60V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} =6m \Omega (\text{Max}) @ V_{GS}= 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

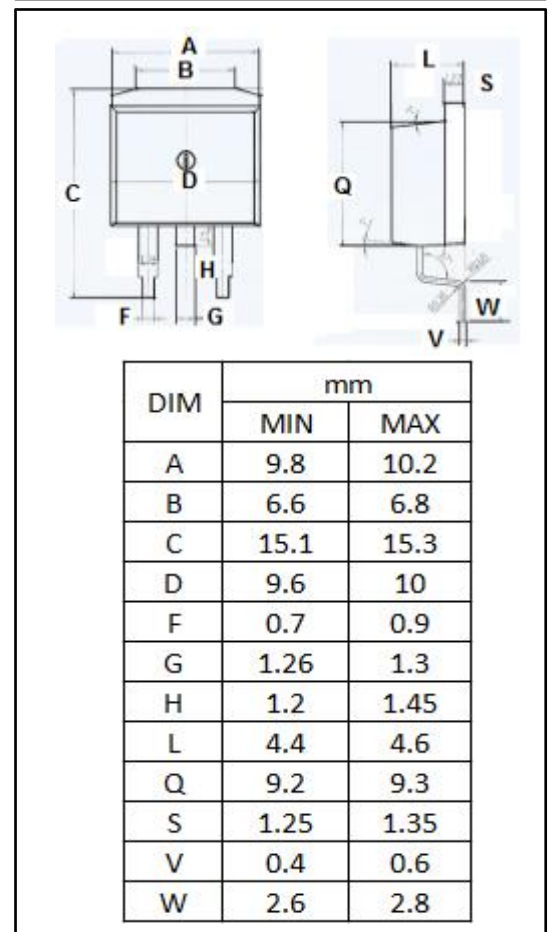
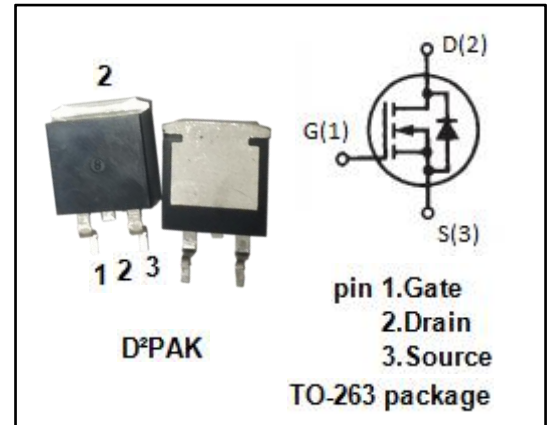
- motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GSS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous;@ $T_c=25^\circ C$	14	A
I_{DM}	Drain Current-Single Pulsed	56	A
P_D	Total Dissipation	242	W
T_j	Operating Junction Temperature	-55~175	$^\circ C$
T_{stg}	Storage Temperature	-55~175	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.62	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	60	-	-	V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D = 0.25mA	1	-	2.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =80A	-	-	6	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} =±20V; V _{DS} = 0V	-	-	±100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =48V; V _{GS} = 0V	-	-	1	uA
V _{SD}	Diode forward voltage	I _{SD} =80A, V _{GS} = 0 V	-	-	1.25	V

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