

## isc N-Channel MOSFET Transistor

FDD6676

### FEATURES

- Drain Current :  $I_D=78A$  @  $T_c=25^\circ C$
- Drain Source Voltage :  $V_{DSS}=30V$  (Min)
- Static Drain-Source On-Resistance :  $R_{DS(on)}=7.5m\Omega$  (Max) @  $V_{GS}= 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### DESCRIPTION

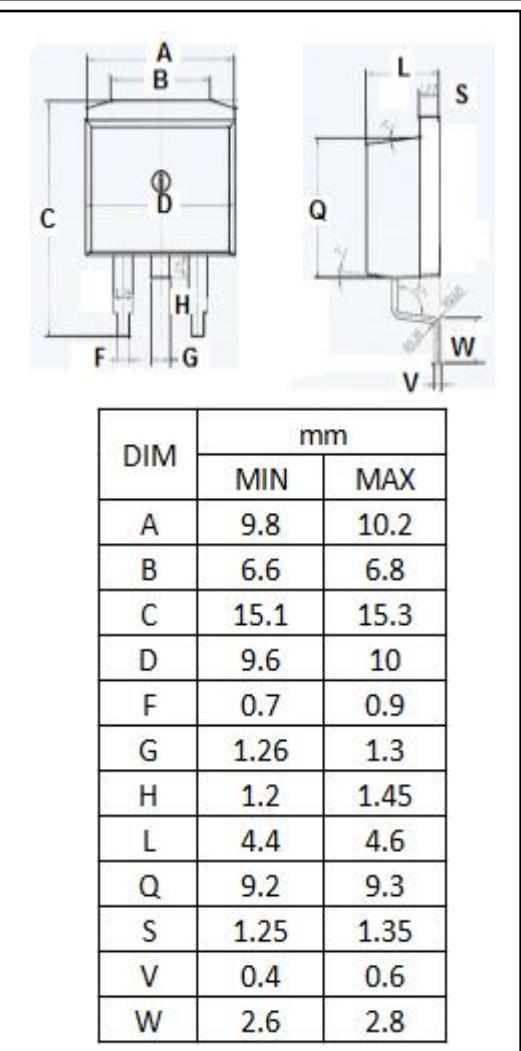
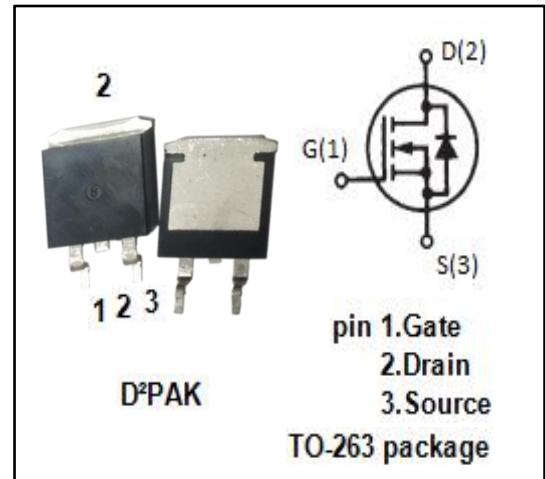
- motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	30	V
$V_{GSS}$	Gate-Source Voltage	$\pm 16$	V
$I_D$	Drain Current-Continuous;@ $T_c=25^\circ C$	78	A
$I_{DM}$	Drain Current-Single Pulsed	100	A
$P_D$	Total Dissipation	83	W
$T_j$	Operating Junction Temperature	-55~175	°C
$T_{stg}$	Storage Temperature	-55~175	°C

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1.8	°C/W



**isc N-Channel MOSFET Transistor****FDD6676****ELECTRICAL CHARACTERISTICS**T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 0.25mA	30	-	-	V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = 0.25mA	1	-	3	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =16.8A	-	-	7.5	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> =±16V; V <sub>DS</sub> = 0V	-	-	±100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =24V; V <sub>GS</sub> = 0V	-	-	1	uA
V <sub>SD</sub>	Diode forward voltage	I <sub>SD</sub> =3.2A, V <sub>GS</sub> = 0 V	-	-	1.2	V

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