

isc N-Channel MOSFET Transistor

FDD5612

FEATURES

- Drain Current $-I_D=18A@T_C=25^{\circ}C$
- Drain Source Voltage $-V_{DSS}=60V(\text{Min})$
- Static Drain-Source On-Resistance
 $-R_{DS(on)}=55m\Omega(\text{Max})$

DESCRIPTION

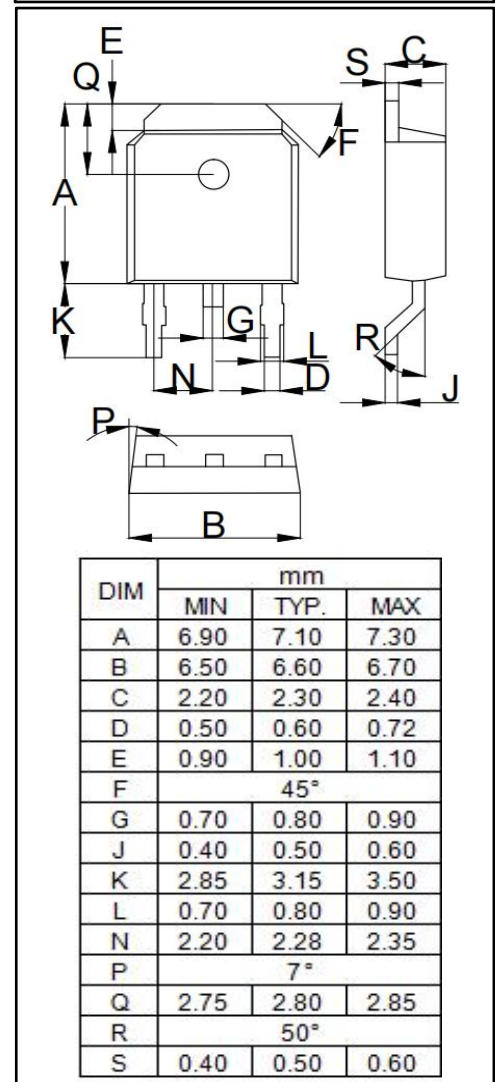
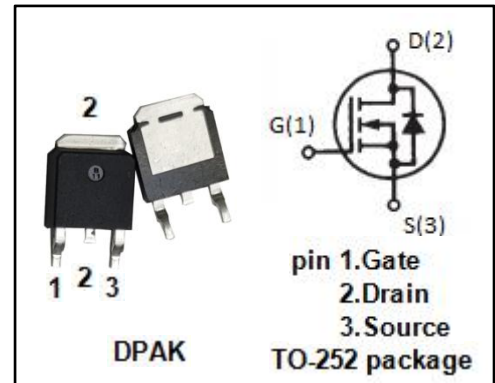
- Motor drive, DC-DC converter, power switch and solenoid drive.

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	18	A
I_{DM}	Drain Current-Single Pluse	100	A
P_D	Total Dissipation @ $T_C=25^{\circ}C$	42	W
T_J	Max. Operating Junction Temperature	175	$^{\circ}C$
T_{stg}	Storage Temperature	-55~175	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	3.5	$^{\circ}C/W$



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ELECTRICAL CHARACTERISTICS (T_c=25°C unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =0.25mA	60	--	--	V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 0.25mA	1.0	2.4	3.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =5.4A	--	36	55	mΩ
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =6V; I _D 5A	--	42	64	mΩ
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0	--	--	±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =48V; V _{GS} = 0	--	--	1	uA
V _{SD}	Forward On-Voltage	I _S =2.7A; V _{GS} = 0	--	0.8	1.2	V

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