

isc N-Channel MOSFET Transistor

FDD8647L

FEATURES

- Drain Current : $I_D=42A@T_C=25^\circ C$
- Drain Source Voltage
: $V_{DSS}=40V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)}=9.0m\Omega(\text{Max})@V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

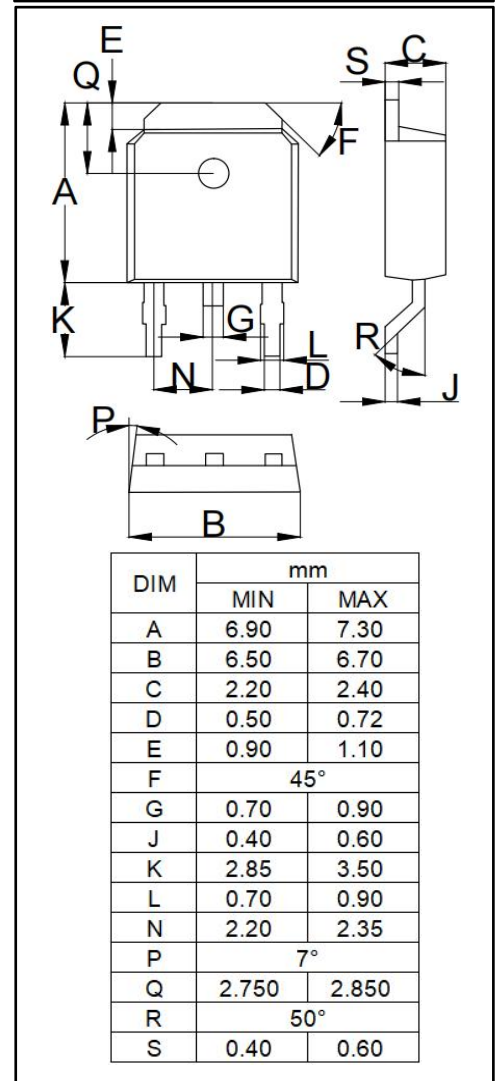
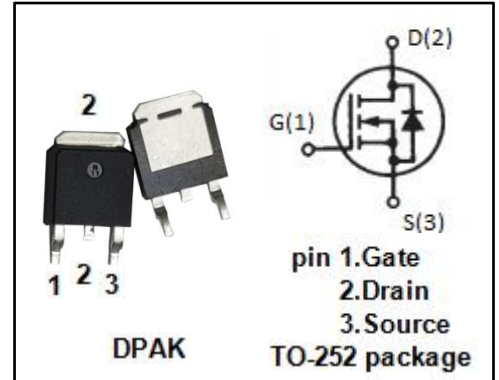
- motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	40	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	42	A
I_{DM}	Drain Current-Single Pluse	100	A
P_D	Total Dissipation @ $T_C=25^\circ C$	43	W
T_J	Max. Operating Junction Temperature	-55~150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	2.9	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	40	-	V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 0.25mA	1.0	3.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =13A	-	9.0	mΩ
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0	-	±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 32V; V _{GS} = 0	-	1.0	uA
V _{SD}	Forward On-Voltage	I _S =2.6A; V _{GS} = 0	-	1.2	V
V _{SD}	Forward On-Voltage	I _S =13A; V _{GS} = 0	-	1.3	V

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