

## isc N-Channel MOSFET Transistor

FDD8882

## FEATURES

- Drain Current :  $I_D=55A@T_C=25^{\circ}C$
- Drain Source Voltage  
:  $V_{DSS}=30V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)}=11.5m\Omega(\text{Max})@V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## DESCRIPTION

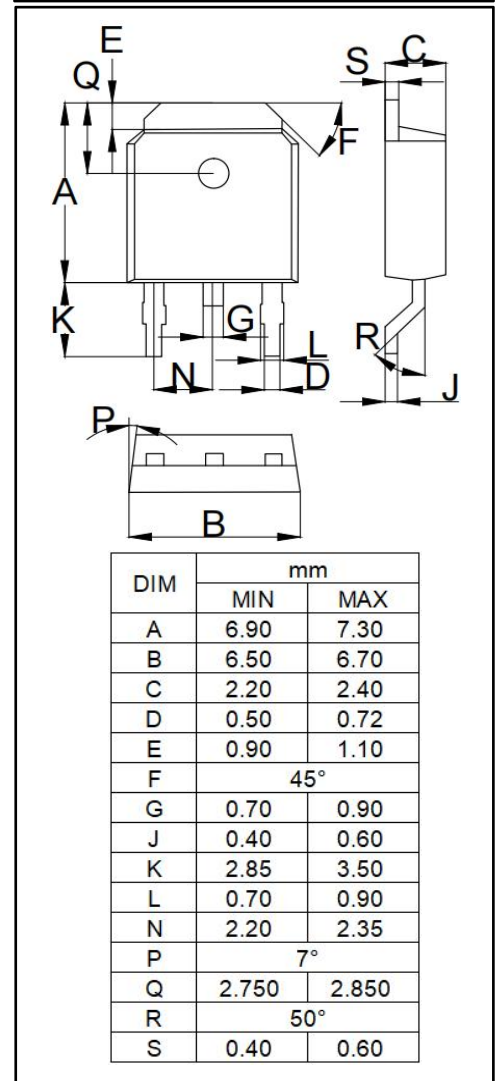
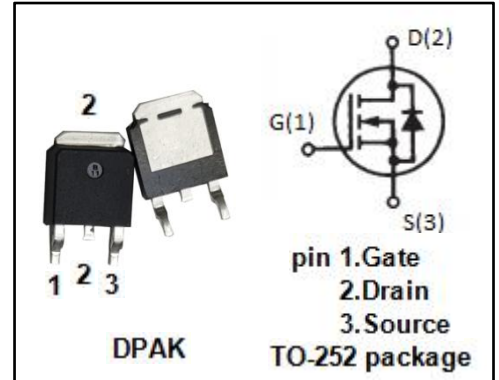
- motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	30	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 20$	V
$I_D$	Drain Current-Continuous	55	A
$I_{DM}$	Drain Current-Single Pluse	220	A
$P_D$	Total Dissipation @ $T_C=25^{\circ}C$	55	W
$T_J$	Max. Operating Junction Temperature	-55~175	$^{\circ}C$
$T_{stg}$	Storage Temperature	-55~175	$^{\circ}C$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	2.73	$^{\circ}C/W$



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## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$ ; $I_D=0.25\text{mA}$	30	-	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$ ; $I_D=0.25\text{mA}$	1.2	2.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$ ; $I_D=35\text{A}$	-	11.5	$\text{m}\Omega$
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=4.5\text{V}$ ; $I_D=35\text{A}$	-	15	$\text{m}\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}$ ; $V_{DS}=0$	-	$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=24\text{V}$ ; $V_{GS}=0$	-	1.0	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S=35\text{A}$ ; $V_{GS}=0$	-	1.25	V
$V_{SD}$	Forward On-Voltage	$I_S=15\text{A}$ ; $V_{GS}=0$	-	1.0	V

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