

# N-Channel MOSFET Transistor

# HL75N08

## FEATURES

- Drain Current  $-I_D = 80A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 100V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.016\Omega (\text{Max})$

## DESCRIPTION

Suitable as primary switch in advanced high-efficiency, high-frequency isolated DC-DC converters for Telecom and Computer applications. It is also intended for any application with low gate drive requirements .

## APPLICATIONS

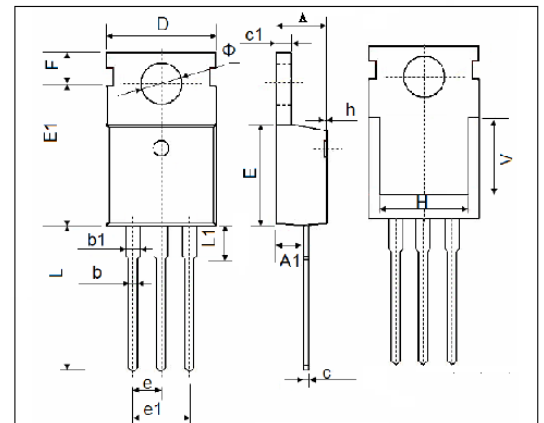
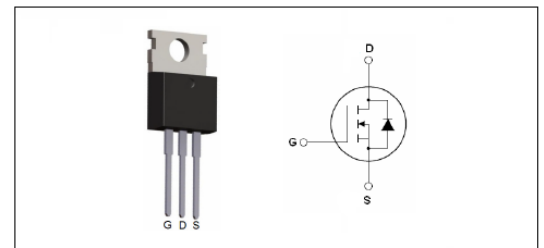
- Solenoid and relay drivers
- DC motor control
- DC-DC converters DC
- Automotive environment

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	100	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 20$	V
$I_D$	Drain Current-Continuous	57	A
$I_{DM}$	Drain Current-Single Pluse ( $t_p \leq 10\mu s$ )	190	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	170	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	0.91	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	4.400	4.600
A1	2.250	2.550
b	0.710	0.910
b1	1.170	1.370
c	0.330	0.650
c1	1.200	1.400
D	9.910	10.250
E	8.9500	9.750
E1	12.650	12.950
e	2.540 TYP	
e1	4.980	5.180
F	2.650	2.950
H	7.900	8.100
h	0.000	0.300
L	12.900	13.400
L1	2.850	3.250
V	7.500 REF.	
phi	3.400	3.800

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}= 0; I_D= 0.25\text{mA}$	100		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}= V_{GS}; I_D= 0.25\text{mA}$	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}= 10\text{V}; I_D= 40\text{A}$		0.016	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}= \pm 20\text{V}; V_{DS}= 0$		$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}= 100\text{V}; V_{GS}= 0$ $V_{DS}= 100\text{V}; V_{GS}= 0; T_j= 125^\circ\text{C}$		1 10	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S= 80\text{A}; V_{GS}= 0$		1.2	V