

isc N-Channel MOSFET Transistor

STP75NF75

FEATURES

- Drain Current $-I_D = 80A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 75V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.011 \Omega (Max)$

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

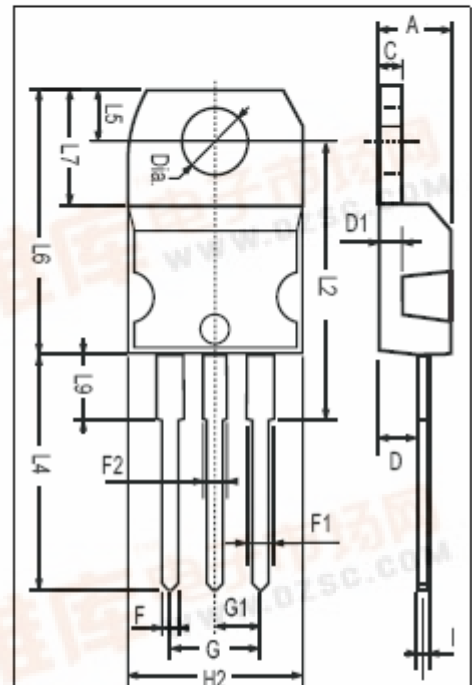
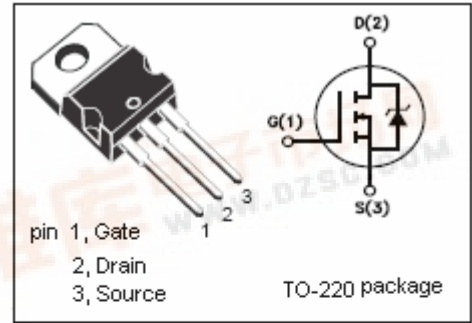
- Solenoid and relay drivers
- DC motor control
- DC-DC converters DC
- Automotive environment

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	75	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	80	A
I_{DM}	Drain Current-Single Pluse ($t_p \leq 10 \mu s$)	320	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	300	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	0.5	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



DIM.	mm	
	MIN.	MAX.
A	4.40	4.80
C	1.23	1.32
D	2.40	2.72
D1	1.27	
E	0.49	0.70
F	0.81	0.88
F1	1.14	1.70
F2	1.14	1.70
G	4.95	5.15
G1	2.4	2.7
H2	10.0	10.40
L2	16.4	
L4	13.0	14.0
L5	2.65	2.95
L6	15.25	15.75
L7	6.2	6.6
L9	3.5	3.93
DIA.	3.75	3.85



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SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=0.25\text{mA}$	75		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	$V_{GS}=10\text{V}; I_D=40\text{A}$		0.011	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}= \pm 20\text{V}; V_{DS}=0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=75\text{V}; V_{GS}=0$ $V_{DS}=75\text{V}; V_{GS}=0; T_j=125^\circ\text{C}$		1 10	μA
V_{SD}	Forward On-Voltage	$I_S=80\text{A}; V_{GS}=0$		1.5	V