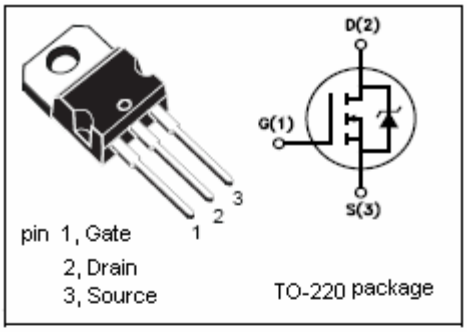
isc N-Channel MOSFET Transistor STP75NF75



FEATURES

- Drain Current –I_D= 80A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 75V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 0.011Ω (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

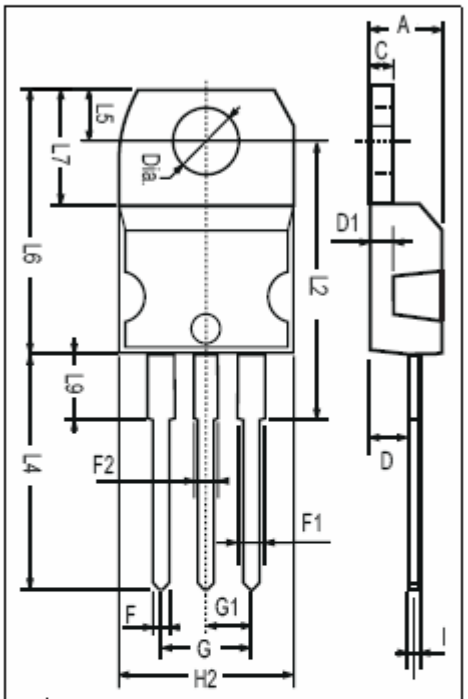
- Solenoid and relay drivers
- DC motor control
- DC-DC converters DC
- Automotive environment

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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≤10μs)	320	A
P_D	Total Dissipation @T_C=25℃	300	W
T_J	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature	-55~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.5	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	62.5	℃/W



DIM.	mm	
	MIN.	MAX.
A	4.40	4.60
C	1.23	1.32
D	2.40	2.72
D1	1.27	
E	0.49	0.70
F	0.61	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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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 0.25mA	75		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 0.25mA	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 40A		0.011	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0		±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 75V; V_{GS}= 0 V_{DS}= 75V; V_{GS}= 0; T_j= 125℃		1 10	μA
V_{SD}	Forward On-Voltage	I_S= 80A; V_{GS}=0		1.5	V