

isc N-Channel MOSFET Transistor

60NF06

FEATURES

- Drain Current  $-I_D=60A @ T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}= 60V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.016 \Omega (\text{Max})$
- Fast Switching

DESCRIPTION

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

APPLICATIONS

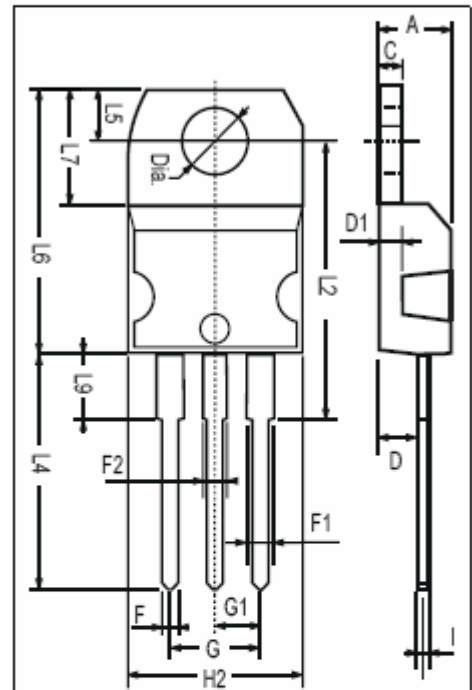
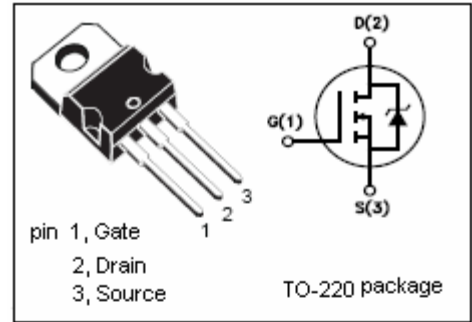
- High-efficiency DC-DC converters
- UPS and motor control
- Automotive

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	60	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 20$	V
$I_D$	Drain Current-Continuous	60	A
$I_{DM}$	Drain Current-Single Pluse ( $t_p \leq 10 \mu s$ )	240	A
$P_D$	Total Dissipation @ $T_C=25^\circ C$	110	W
$T_J$	Max. Operating Junction Temperature	175	$^\circ C$
$T_{stg}$	Storage Temperature	-65~175	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.36	$^\circ C/W$
$R_{th j-a}$	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	4.96	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
L8	15.25	15.75
L7	6.2	6.6
L9	3.5	3.93
DIA.	3.75	3.85

**isc N-Channel MOSFET Transistor****60NF06****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=0.25\text{mA}$	60		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	$V_{GS}=10\text{V}; I_D=30\text{A}$		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	$V_{DS}=60\text{V}; V_{GS}=0$ $V_{DS}=60\text{V}; V_{GS}=0; T_J=125^{\circ}\text{C}$		1 10	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S=60\text{A}; V_{GS}=0$		1.3	V