

isc N-Channel MOSFET Transistor

FS70SMJ-06

FEATURES

- Drain Current $-I_D=70A@T_C=25^{\circ}C$
- Drain Source Voltage $-V_{DSS}=60V(\text{Min})$
- Static Drain-Source On-Resistance
 $-R_{DS(on)}=7m\Omega(\text{Max})$

DESCRIPTION

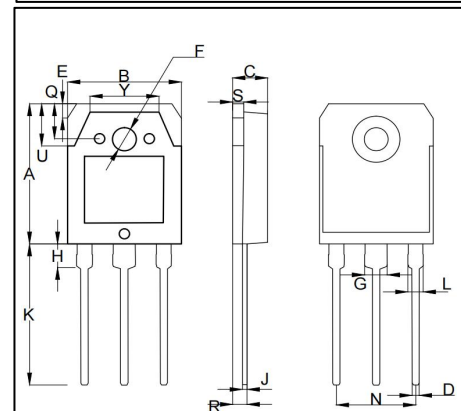
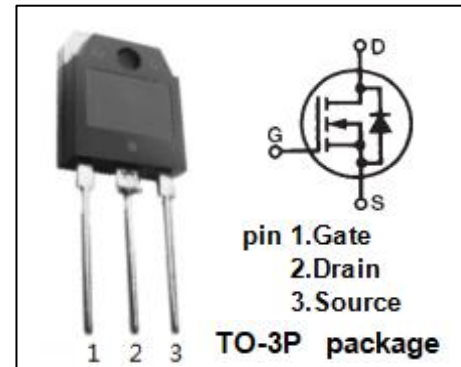
- Motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	70	A
I_{DM}	Drain Current-Single Pluse	280	A
P_D	Total Dissipation @ $T_C=25^{\circ}C$	150	W
T_J	Max. Operating Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.83	$^{\circ}C/W$



DIM	mm		
	MIN	TYP.	MAX
A	19.70	19.95	20.20
B	15.45	15.60	15.75
C	4.70	4.80	4.90
D	0.90	1.00	1.10
E	1.80	2.00	2.20
F	3.40	3.50	3.60
G	2.95	3.10	3.25
H	3.10	3.25	3.40
J	0.50	0.60	0.70
K	19.80	20.00	20.20
L	2.00	2.10	2.20
M	13.30	13.60	13.90
N	10.80	10.90	11.00
Q	4.25	4.68	5.10
R	1.75	2.03	2.30
S	1.40	1.50	1.60
U	5.90	6.05	6.20
Y	9.45	9.60	9.75

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ELECTRICAL CHARACTERISTICS ($T_c=25^{\circ}\text{C}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=1\text{mA}$	60	--	--	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=1\text{mA}$	1.0	1.5	2.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=35\text{A}$	--	5.4	7.0	$\text{m}\Omega$
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=4\text{V}$; $I_D=35\text{A}$	--	6.5	8.4	$\text{m}\Omega$
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}$; $V_{DS}=0$	--	--	± 0.1	μA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=60\text{V}$; $V_{GS}=0$	--	--	0.1	mA
V_{SD}	Forward On-Voltage	$I_S=35\text{A}$; $V_{GS}=0$	--	1.0	1.5	V

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