

## isc N-Channel MOSFET Transistor

## FS5VS-6

## FEATURES

- Drain Current  $-I_D=5A@T_C=25^{\circ}C$
- Drain Source Voltage  $-V_{DSS}=300V(\text{Min})$
- Static Drain-Source On-Resistance  
 $-R_{DS(on)}=1.6\Omega(\text{Max})$

## DESCRIPTION

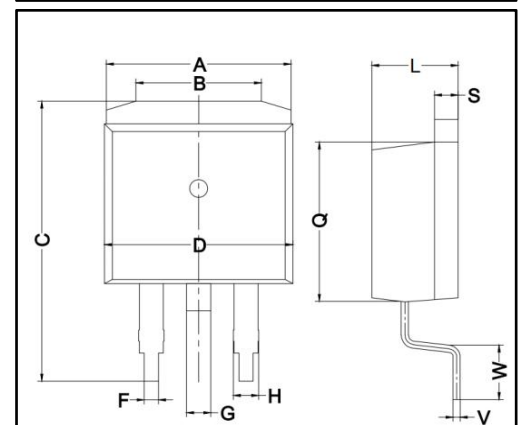
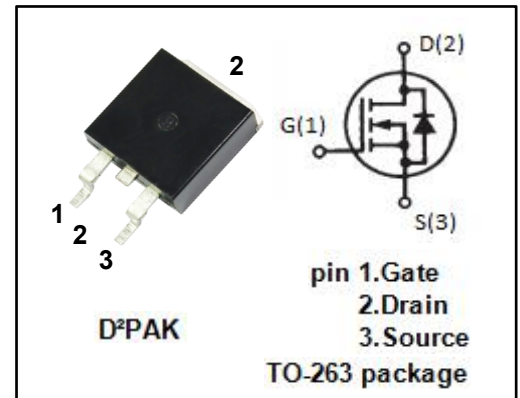
- Motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	300	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 30$	V
$I_D$	Drain Current-Continuous	5	A
$I_{DM}$	Drain Current-Single Pluse	15	A
$P_D$	Total Dissipation @ $T_C=25^{\circ}C$	60	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	2.08	$^{\circ}C/W$



DIM	mm		
	MIN	TYP.	MAX
A	9.80	10.00	10.20
B	6.60	6.70	6.80
C	15.10	15.20	15.30
D	9.60	9.80	10.00
F	0.70	0.80	0.90
G	1.26	1.28	1.30
H	1.20	1.33	1.45
L	4.40	4.50	4.60
Q	9.20	9.25	9.30
S	1.25	1.30	1.35
V	0.40	0.50	0.60
W	2.60	2.70	2.80

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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	$V_{GS}=0; I_D=1\text{mA}$	300	--	--	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=1\text{mA}$	2.0	3.0	4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=2\text{A}$	--	1.2	1.6	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 25\text{V}; V_{DS}=0$	--	--	$\pm 10$	mA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=300\text{V}; V_{GS}=0$	--	--	1	mA
$V_{SD}$	Forward On-Voltage	$I_S=2\text{A}; V_{GS}=0$	--	1.5	2.0	V

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