

isc P-Channel MOSFET Transistor

IRFP9240

FEATURES

- Drain Current $-I_D = -12A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DS} = -200V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.5 \Omega (Max) @ V_{GS} = -10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

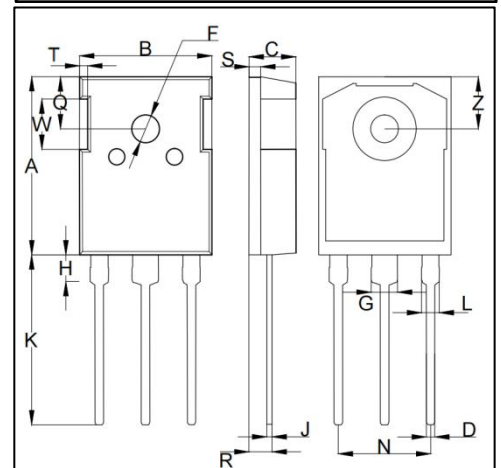
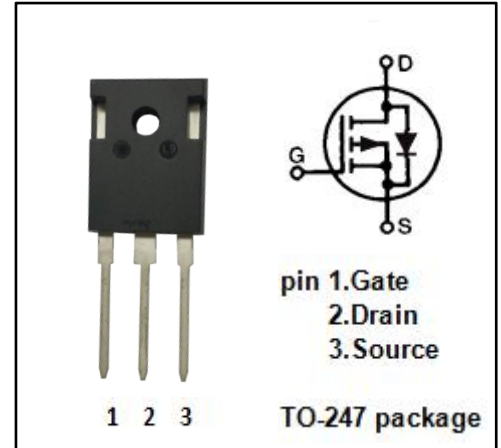
- motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	-200	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	-12	A
I_{DM}	Drain Current-Single Pluse	-48	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	MAX
A	19.80	21.50
B	15.40	15.90
C	4.70	5.30
D	0.90	1.26
F	3.50	3.90
G	2.70	3.30
H	3.90	4.10
J	0.500	0.700
K	19.50	20.50
L	1.90	2.20
N	10.80	11.00
Q	6.00	6.30
R	2.90	3.30
S	1.80	2.20
T	2.15	2.35
W	4.90	5.10
Z	6.00	6.30

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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	$V_{GS}=0; I_D=-250\mu\text{A}$	-200	--	--	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=-250\mu\text{A}$	-2.0	--	-4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=-10\text{V}; I_D=-6.3\text{A}$	--	--	0.5	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	$V_{DS}=-200\text{V}; V_{GS}=0$	--	--	-25	μA
V_{SD}	Forward On-Voltage	$I_S=-12\text{A}; V_{GS}=0$	--	--	-1.5	V

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