

isc P-Channel MOSFET Transistor
IRF5305S
• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 60m\Omega (@V_{GS} = -10V; I_D = -16A)$
- Advanced trench process technology
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

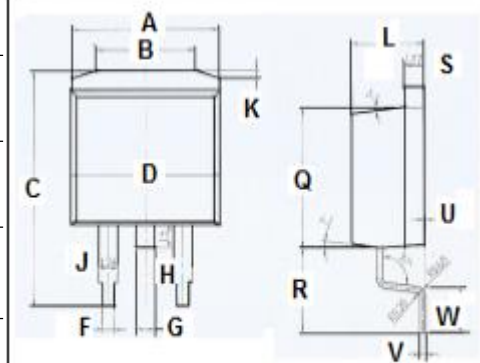
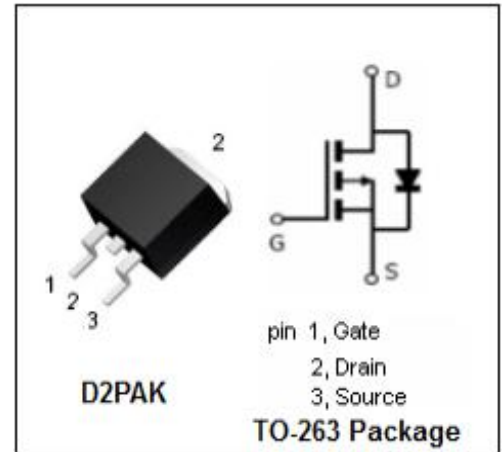
- Fast switching application.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	-55	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	31	A
P_D	Total Dissipation @ $T_c=25^\circ C$	110	W
T_j	Max. Operating Junction Temperature	-55~175	$^\circ C$
T_{stg}	Storage Temperature	-55~175	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	1.4	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = -250 μA	-55			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D = -250 μA	-2		-4	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = -10V; I _D = -16A			60	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0V			± 100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = -55V; V _{GS} = 0V			-25	μA
V _{SD}	Diode forward voltage	I _s = -16A, V _{GS} = 0V			-1.3	V

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