

isc P-Channel MOSFET Transistor

IRFU5305

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 65\text{m}\Omega$ (@ $V_{GS} = -10\text{V}$; $I_D = -16\text{A}$)
- Advanced trench process technology
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

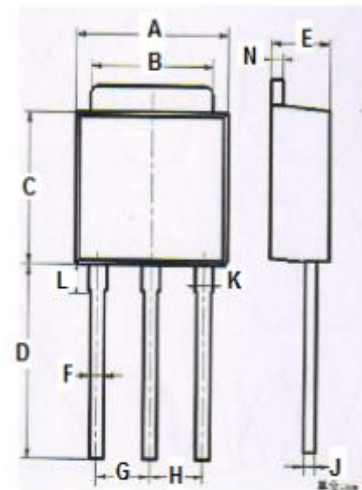
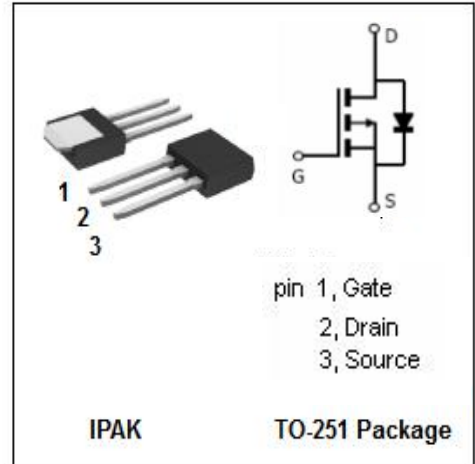
- Fast switching application.

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

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 @ $T_c = 25^\circ\text{C}$	110	W
T_j	Max. Operating Junction Temperature	-55~175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

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



DIM	mm	
	MIN	MAX
A	6.40	6.48
B	5.10	5.50
C	5.80	6.20
D	9.20	9.60
E	2.20	2.40
F	0.50	0.70
G	2.09	2.49
H	2.09	2.49
J	0.40	0.60
K	0.70	0.90
L	1.60	2.00
N	0.40	0.60

isc P-Channel MOSFET Transistor**IRFU5305****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	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		65	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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