

isc P-Channel MOSFET Transistor

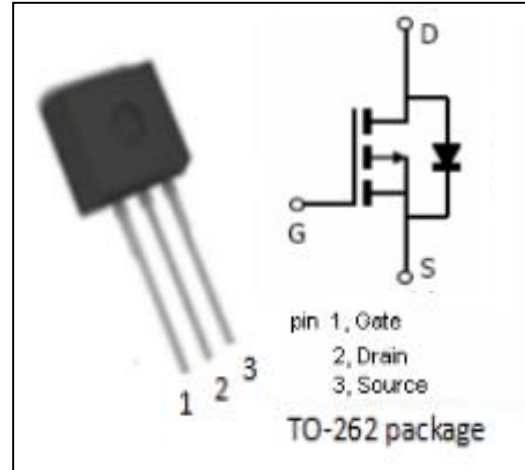
IRF5305L

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 60\text{m}\Omega$ (@ $V_{GS} = -10\text{V}$; $I_D = -16\text{A}$)
- 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_{DSS}	Drain-Source Voltage	-55	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	-22	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	$^\circ\text{C/W}$

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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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