

isc N-Channel MOSFET Transistor

IRL3705NPBF

• FEATURES

- Static drain-source on-resistance: R_{DS}(on) ≤10mΩ
- · Lead-Free
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



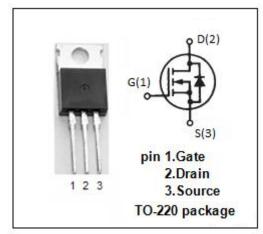
• reliable device for use in a wide variety of applications

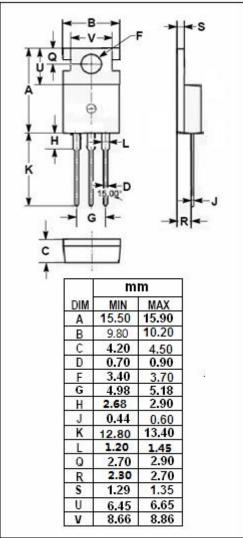
• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	55	V
V _{GS}	Gate-Source Voltage	±16	V
I _D	Drain Current-Continuous	89	А
I _{DM}	Drain Current-Single Pulsed	310	А
P _D	Total Dissipation @Tc=25℃	170	W
Tj	Max. Operating Junction Temperature	-55~175	${\mathbb C}$
T _{stg}	Storage Temperature	-55~175	$^{\circ}$ C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	0.9	°C/W







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ELECTRICAL CHARACTERISTICS

Tc=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; ID =250 μ A	55			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; ID =250 μ A	1.0		2.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =46A			10	mΩ
lgss	Gate-Source Leakage Current	V _{GS} =±16V			±0.1	μ А
I _{DSS}	Drain-Source Leakage Current	V _{DS} =55V; V _{GS} = 0V			25	μ A
V_{SD}	Diode forward voltage	Is=46A, V _{GS} = 0 V			1.3	V

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