

isc N-Channel MOSFET Transistor

IRLB4132

• FEATURES

- With low gate drive requirements
- Easy to drive
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

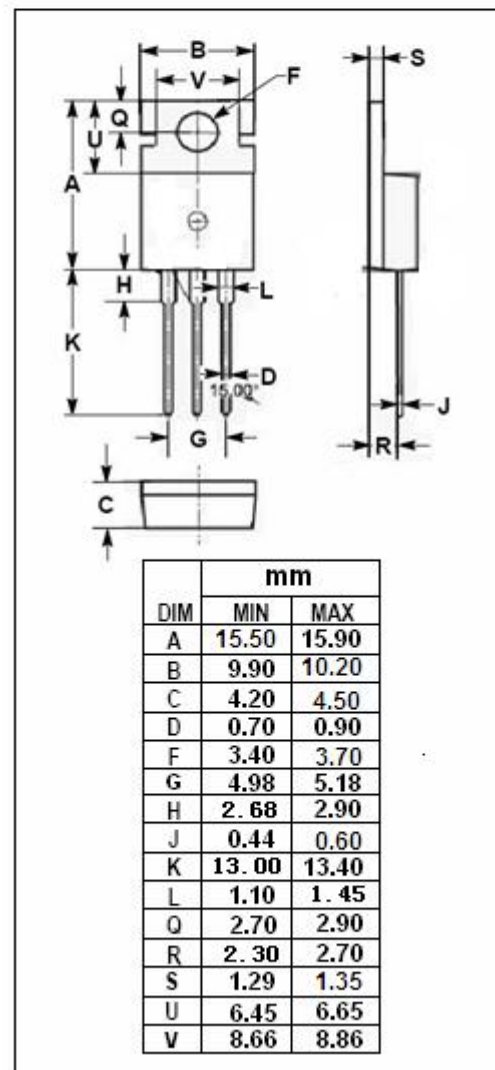
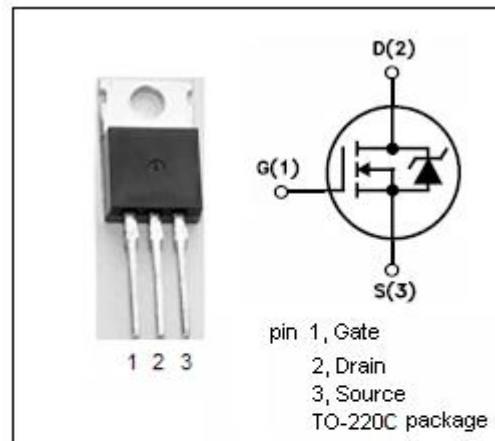
- Switching applications
- Low voltage power tools

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	30	V
V_{GSS}	Gate-Source Voltage	± 20	V
I_{D}	Drain Current-Continuous@ $T_c=25^{\circ}\text{C}$ $T_c=100^{\circ}\text{C}$	150 100	A
I_{DM}	Drain Current-Single Pulsed	620	A
P_{D}	Total Dissipation @ $T_c=25^{\circ}\text{C}$ $T_c=100^{\circ}\text{C}$	140 68	W
T_j	Operating Junction Temperature	-55~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~175	$^{\circ}\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{\text{th(ch-c)}}$	Channel-to-case thermal resistance	1.11	$^{\circ}\text{C/W}$
$R_{\text{th(ch-a)}}$	Channel-to-ambient thermal resistance	62	$^{\circ}\text{C/W}$



isc N-Channel MOSFET Transistor**IRLB4132****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 = 0.25mA	30			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±20V; I _D =0.1mA	1.35		2.35	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =40A V _{GS} = 4.5V; I _D =32A		2.5 3.5	3.5 4.5	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 24V; V _{GS} = 0V@T _C =25°C T _C =125°C			1 100	μA
V _{SDF}	Diode forward voltage	I _{SD} =32A, V _{GS} = 0 V			1.0	V

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