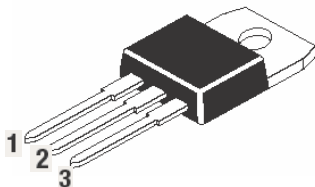


N-CHANNEL POWER MOSFET

IRF830



1. Gate
2. Drain
3. Source

TO-220AB
Plastic Package

Fast Switching Speed, Low On-State Resistance

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

DESCRIPTION	SYMBOL	VALUE	UNIT
Continuous Drain Current	I_D	4.5	A
Gate-Source Voltage	V_{GS}	± 30	V
Pulsed Drain Current	I_{DM}	18	A
Thermal Resistance Junction-to-Case	$R_{\theta JC}$	1.7	$^\circ\text{C/W}$
Total Power Dissipation $T_a=25^\circ\text{C}$	P_{tot}	2	W
$T_c=25^\circ\text{C}$		75	
Operating Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

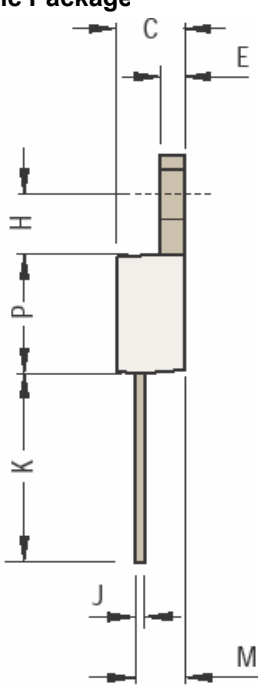
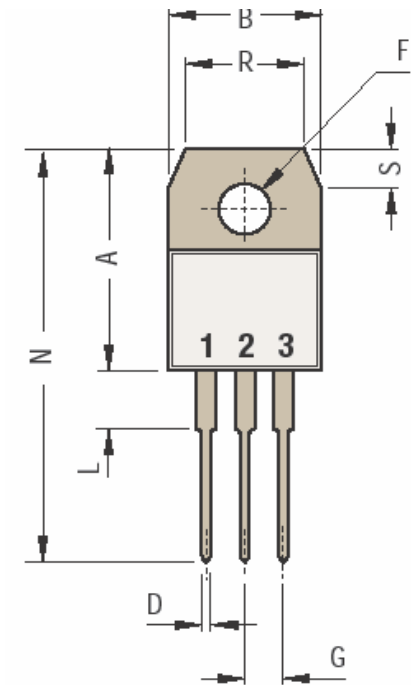
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	VALUE			UNIT
			MIN	TYP	MAX	
Drain-to-Source Voltage	V_{DSS}	$V_{GS}=0V, I_D=250 \mu\text{A}$	500			V
Drain-to-Source On Resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=2.7A$			1.5	Ω
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	2		4	V
Drain Current, Zero Gate Voltage	I_{DSS}	$V_{DS}=500V, V_{GS}=0V$			25	μA
Gate to Source Leakage Current	I_{SGS}	$V_{SG}=\pm 30V$			± 100	nA
Diode Forward Voltage	V_{FSD}	$I_S=4.5A, V_{GS}=0V$			1.25	V

A: Impulse Testing $t_p \leq 300\mu\text{s}, \delta \leq 2\%$

TO-220AB
Plastic Package

TO-220AB Plastic Package



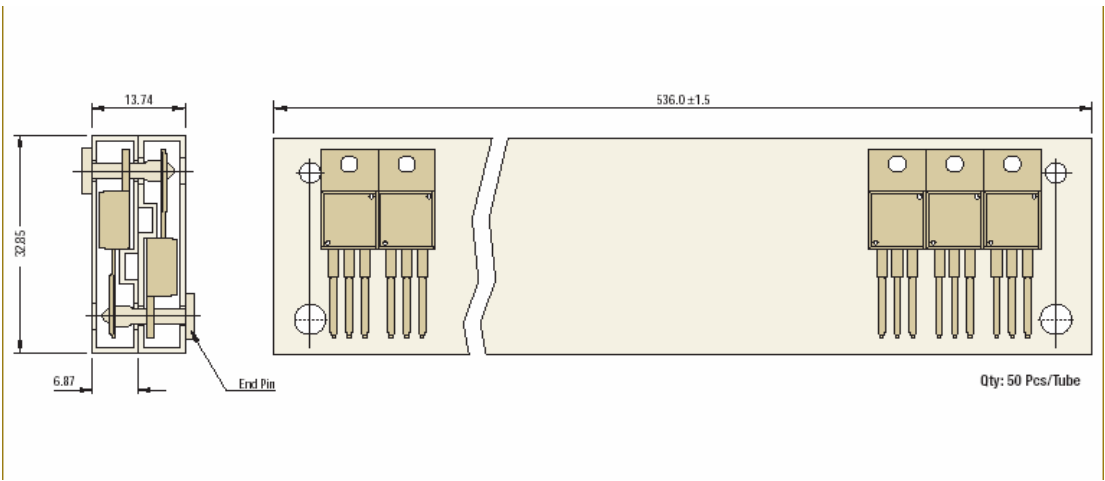
DIM	Min	Max
A	13.40	14.20
B		10.54
C	4.40	4.70
D	0.880	0.940
E	1.14	1.29
F	3.74	3.91
G	2.41	2.67
H	3.43	3.68

DIM	Min	Max
J	0.35	0.58
K	13.48	14.22
L	3.55	4.05
M	2.54	2.79
N	28.40	29.16
P	8.36	8.89
R	9.14	9.40
S	2.62	2.87

All Dimensions are in mm

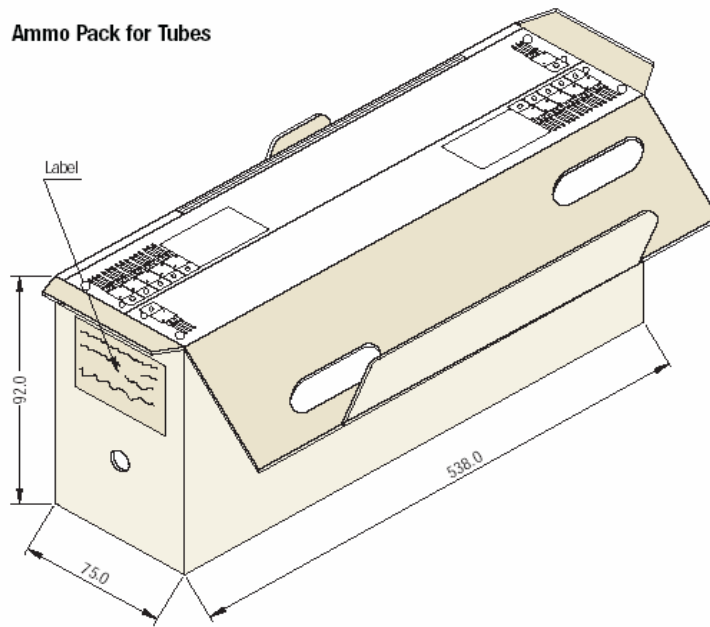
- 1. Gate
- 2. Drain
- 3. Source

TO-220AB Packaging Tube



All Dimensions are in mm

Ammo Packaging for Tubes



Components Disposal Instructions

1. CDIL Semiconductor Devices are non-recyclable RoHS free material, customers are requested to please dispose as per prevailing Environmental Legislation of their Country
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of

Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119

email@cdil.com www.cdilsemi.com

IRF830 Rev 170306D