



NPN BD130

SILICON TRANSISTOR HOMOBASE

LF Large signal power amplification
 High current switching
 Regulated DC power supply
 Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings	Value	Unit
V_{CEO}	Collector-Emitter Voltage	60	V
V_{CBO}	Collector-Base Voltage	100	V
V_{CEX}	Collector-Emitter Voltage $V_{BE}=-1.5\text{ V}$	100	V
I_C	Collector Current	15	A
I_B	Base Current	7	A
P_T	Power Dissipation @ $T_C = 45^\circ$	100	W
T_J	Junction Temperature	-55 to +200	$^\circ\text{C}$
T_S	Storage Temperature		

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-C}	Thermal Resistance, Junction to Case	1.55	$^\circ\text{C/W}$

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

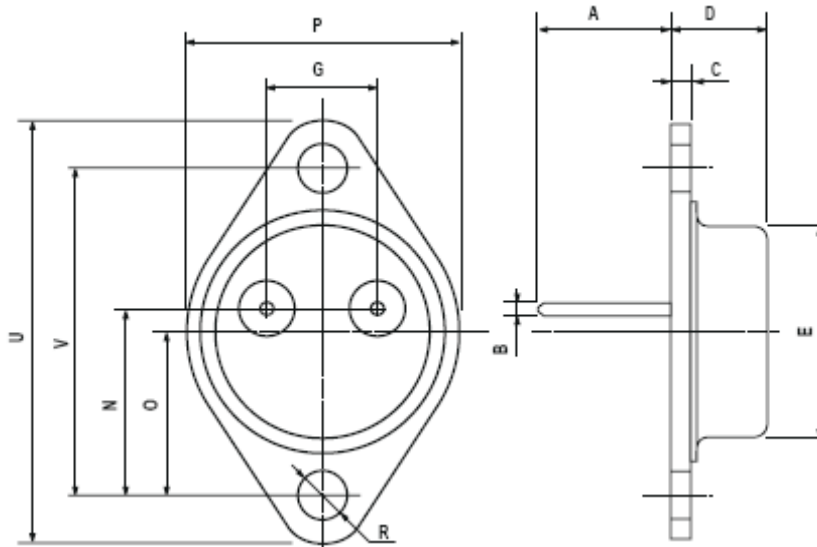
Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{CEO(BR)}$	Collector-Emitter Breakdown Voltage (*)	$I_C=200\text{ mA}, I_B=0$	60			V
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage (*)	$I_C=4\text{ A}, I_B=0.4\text{ A}$	-	0.5	1.1	V
I_{CEX}	Collector-Emitter Cutoff Current	$V_{CE}=100\text{ V}, V_{BE}=-1.5\text{ V}$	-	-	0.5	mA
		$V_{CE}=100\text{ V}, V_{BE}=-1.5\text{ V}$ $T_{CASE}=150^\circ\text{C}$	-	-	30	
I_{EBO}	Emitter-Base Cutoff Current	$V_{EB}=7\text{ V}$	-	-	5.0	mA
V_{BE}	Base-Emitter Voltage (*)	$I_C=4.0\text{ A}, V_{CE}=4.0\text{ V}$	-	0.95	1.8	V
f_T	Transition Frequency	$I_C=0.1\text{ A}, V_{CE}=4\text{ V}$		1.1		MHz
h_{21E}	Static Forward Current Transfer Ratio (*)	$V_{CE}=4.0\text{ V}, I_C=4.0\text{ A}$	20	-	70	-

(*) Pulse Width $\approx 300\ \mu\text{s}$, Duty Cycle $\angle 2.0\%$

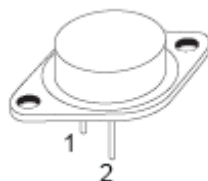
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MECHANICAL DATA CASE TO-3

DIMENSIONS (mm)		
	min	max
A	11	13.10
B	0.97	1.15
C	1.5	1.65
D	8.32	8.92
F	19	20
G	10.70	11.1
N	16.50	17.20
P	25	26
R	4	4.09
U	38.50	39.30
V	30	30.30



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector



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