Micro Commercial Components

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21201 Itasca Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

MJ431

10 Amp NPN Silicon Power Transistors 125W

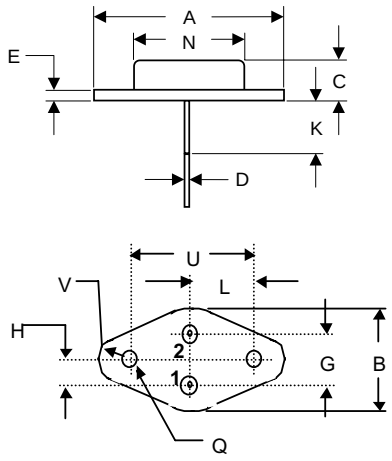
Features

- Collector-Emitter Voltage: V_{CEX}=400V(Min)
- DC Current Gain: h_{FE}= 15-35@ I_C= 2.5A

Maximum Ratings

Characteristic	Symbol	Max	Unit
Collector-Emitter Voltage	V_{CEX}	400	Vdc
Collector-Base Voltage	V_{CBO}	400	Vdc
Emitter-Base Voltage	V_{EBO}	5.0	Vdc
Collector Current-Continuous	I_C	10	Adc
Base Current	I_B	2.0	Adc
Total Device Dissipation @T_C=25℃ Derate above 25℃	P_D	125 1.0	Watts W/℃
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-65~200	℃

TO-3



PIN 1. BASE
PIN 2. EMITTER
CASE. COLLECTOR

DIMENSIONS

DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
A	1.550	REF	39.37	REF	
B	0.99	1.050	25.30	26.67	
C	.366	.437	9.30	11.10	
D	.035	.043	0.90	1.10	
E	0.11	0.12	2.90	3.10	
G	.430	BSC	10.92	BSC	
H	.215	BSC	5.46	BSC	
K	.449	.532	11.40	13.50	
L	.659	.671	16.75	17.05	
N	.764	.772	19.40	19.62	
Q	.157	.165	4.00	4.20	∅
U	1.18	1.19	30.00	30.20	
V	.169	.177	4.30	4.50	

Electrical Characteristics @ 25°C Unless Otherwise Specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 100mA ; I_B= 0	325			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2.5A; I_B= 0.5A			0.7	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2.5A; I_B= 0.5A			1.5	V
I_{CEX}	Collector Cutoff Current	V_{CE}=400V;$V_{BE(off)}$=1.5V V_{CE}=400V;$V_{BE(off)}$=1.5V;T_C=125℃			2.5 5.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			2.0	mA
h_{FE-1}	DC Current Gain	I_C= 2.5A ; V_{CE}= 5V	15		35	
h_{FE-2}	DC Current Gain	I_C= 3A ; V_{CE}= 5V	10			
f_T	Current Gain-Bandwidth Product	I_C= 0.2A ;V_{CE}= 10V; f_{test}=1MHz	2.5			

Ordering Information

Device	Packing
(Part Number)-BP	Bulk;250pcs/Box

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