



Micro Commercial Components
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BU323

NPN Silicon Power Transistors

Features

- Designed for automotive ignition, switching regulator and motor control applications.
- With TO-3 package
- Photoglass passivation for reliability and stability

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	400	V
V_{CBO}	Collector-Base Voltage	600	V
V_{EBO}	Emitter-Base Voltage	8.0	V
I_{CP}	Peak Collector Current	16	A
I_C	Collector Current	10	A
P_C	Collector power dissipation	175	W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

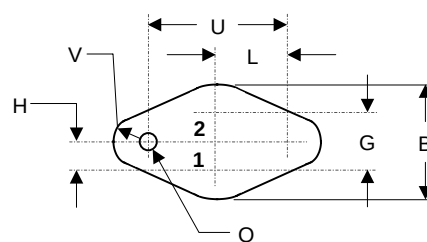
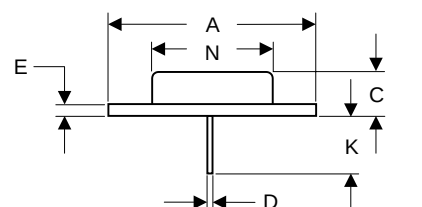
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=200\text{mA}$, $I_B=0$)	400	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=600\text{Vdc}$, $I_E=0$)	---	1.0	mA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=6.0\text{Vdc}$, $I_C=0$)	---	40	mA

ON CHARACTERISTICS

h_{FE-1}	Forward Current Transfer ratio ($I_C=3.0\text{A}$, $V_{CE}=6.0\text{Vdc}$)	300	---	---
h_{FE-2}	Forward Current Transfer ratio ($I_C=6.0\text{A}$, $V_{CE}=6.0\text{Vdc}$)	150	2000	---
h_{FE-3}	Forward Current Transfer ratio ($I_C=10\text{A}$, $V_{CE}=6.0\text{Vdc}$)	50	---	---
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage ($I_C=3.0\text{A}$, $I_B=60\text{mA}$)	---	1.5	Vdc
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage ($I_C=6.0\text{A}$, $I_B=120\text{mA}$)	---	1.7	Vdc
$V_{CE(sat)-3}$	Collector-Emitter Saturation Voltage ($I_C=10\text{A}$, $I_B=300\text{mA}$)	---	2.7	Vdc
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage ($I_C=6.0\text{A}$, $I_B=120\text{mA}$)	---	2.2	Vdc
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage ($I_C=10\text{A}$, $I_B=300\text{mA}$)	---	3.0	Vdc
T_F	Fall Time ($I_C=6.0\text{A}$, $I_{B1}=I_{B2}=0.3\text{A}$, $V_{CC}=12\text{V}$)	---	15	us
t_S	Turn-off Storage Time ($I_C=6.0\text{A}$, $I_{B1}=I_{B2}=0.3\text{A}$, $V_{CC}=12\text{V}$)	---	15	us

TO-3



PIN 1. BASE
PIN 2. EMITTER
CASE. COLLECTOR

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.550	REF	39.37	REF	
B	----	1.050	----	26.67	
C	.250	.335	6.35	8.51	
D	.038	.043	0.97	1.09	
E	0.55	0.70	1.40	1.77	
G	.430	BSC	10.92	BSC	
H	.215	BSC	5.46	BSC	
K	.440	.480	11.18	12.19	
L	.665	BSC	16.89	BSC	
N	----	.830	----	21.08	
Q	.151	.165	3.84	4.19	Ø
U	1.187	BSC	30.15	BSC	
V	.131	.188	3.33	4.77	