Micro Commercial Components
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BUW13A

NPN Silicon Power Transistors

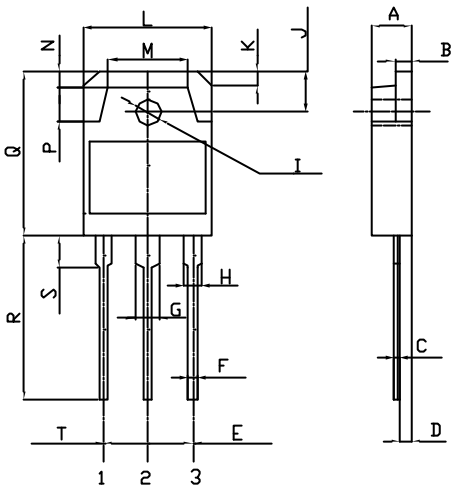
Features

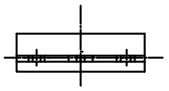
- With TO-3PN package
- Switching regulator applications

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	500	V
V_{CBO}	Collector-Base Voltage	1000	V
V_{EBO}	Emitter-Base Voltage	6.0	V
I_{CP}	Peak Collector Current	20	A
I_C	Collector Current	15	A
P_C	Collector power dissipation	135	W
T_J	Junction Temperature	-55 to +150	^{O}C
T_{STG}	Storage Temperature	-55 to +150	^{O}C

TO-3PN





1.Base
2.Collector
3.Emitter

DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
A	.181	.197	4.60	5.00	
B	.074	.083	1.90	2.10	
C	.022	.033	0.55	0.85	
D	.055		1.40		
E	.211	.219	5.35	5.55	
F	.037	.049	0.95	1.25	
G	.118		3.00		
H	.079		2.00		
I	.122	.130	3.10	3.30	
J	.189	.205	4.80	5.20	
K	.071		1.80		
L	.598	.630	15.20	16.00	
M	.378		9.6		
N	.079		2.0		
P	.157		4.0		
Q	.772	.795	19.6	20.2	
R	.787		20.0		
S		.157		4.0	
T	.211	.219	5.35	5.55	

Electrical Characteristics @ 25^{0}C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I_C=100mAdc, I_B=0)	500	---	Vdc
I_{CBO}	Collector-Base Cutoff Current (V_{CB}=1000Vdc,I_E=0)	---	0.15	mAdc
I_{EBO}	Emitter-Base Cutoff Current (V_{EB}=6.0Vdc, I_C=0)	---	0.15	mAdc
ON CHARACTERISTICS				
h_{FE}	Forward Current Transfer ratio (I_C=15Adc, V_{CE}=5.0Vdc)	5.0	---	---
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage (I_C=5.0Adc, I_B=1.0Adc)	---	0.7	Vdc
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage (I_C=10Adc, I_B=2.0Adc)	---	1.0	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage (I_C=10Adc, I_B=2.0Adc)	---	1.5	Vdc