Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

TIP110/111/112

Silicon NPN Darlington Power Transistor

Features

- Halogen free available upon request by adding suffix "-HF"
- The complementary PNP types are the TIP115/116/117 respectively
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking: Part number
- Mounting Torgue: 5 in-lbs Maximum

Absolute Maximum Ratings @ T_a = 25℃ (unless otherwise noted)

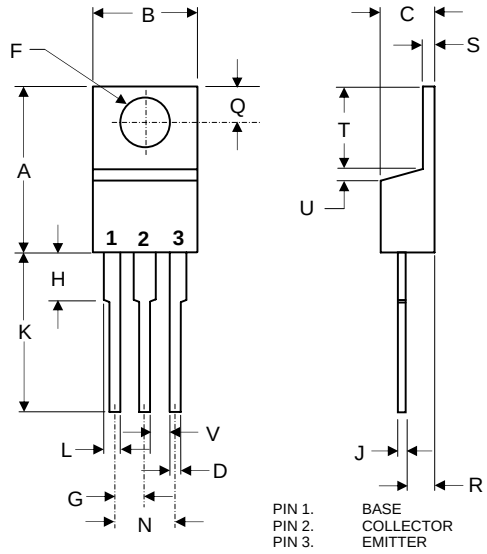
Symbol	Parameter	Value	Unit
V_{CBO} TIP110 TIP111 TIP112	Collector-base voltage (Open emitter)	60 80 100	V
VCEO TIP110 TIP111 TIP112	Collector-emitter voltage (Open base)	60 80 100	V
V_{EBO}	Emitter-base Voltage(Open collector)	5	V
I_C	Collector Current	2	A
I_{CM}	Collector Current Pulse	4	A
I_B	Base Current	0.05	A
P_C	Total Device Dissipation(Ta=25℃)	2	W
	Total Device Dissipation(Tc=25℃)	50	W
T_J	Junction Temperature	150	℃
T_{STG}	Storage Temperature Range	-65 to +150	℃

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
$V_{CEO(SUS)}$ TIP110 TIP111 TIP112	Collector-emitter sustaining voltage (I_C=30mA; I_B=0)	60 80 100		V
VCE(sat)	Collector-emitter Saturation Voltage (I_C=2A I_B=-0.008A)		2.5	V
V_{BE}	Base-emitter Voltage (I_C=2A ; V_{CE}=4V)		2.8	V
I_{CBO} TIP110 TIP111 TIP112	Collector cut-off current (V_{CB}=60V; I_E=0) (V_{CB}=80V; I_E =0) (V_{CB}=100V; I_E =0)	1		mA
I_{CEO} TIP110 TIP111 TIP112	Collector cut-off current (V_{CE}=30V; V_{EB}=0) (V_{CE}=40V; V_{EB}=0) (V_{CE}=50V; V_{EB}=0)	2		mA
I_{EBO}	Emitter cut-off current (V_{EB}=5V; I_C=0)		2.0	mA
H_{fe}	DC current gain (I_C=1A ; V_{CE}=4V) (I_C=2A ; V_{CE}=4V)	1000 500		
C_{OB}	Output capacitance (I_E=0 ; V_{CB}=-10V,f=0.1MHz)		100	PF

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

TO-220AB



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	-----	.050	-----	1.27	
V	.045	-----	1.15	-----	

Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-BP	Bulk;1Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . ***Micro Commercial Components Corp .*** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold ***Micro Commercial Components Corp .*** and all the companies whose products are represented on our website, harmless against all damages.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.