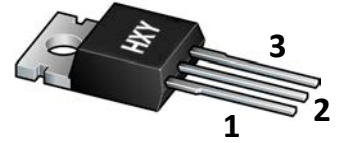




FEATURES

- Medium Power Complementary Silicon Transistors

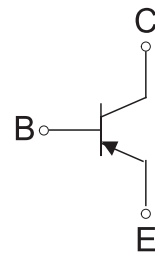
- 1.BASE
- 2.COLLECTOR
- 3.EMITTER



TO-220

MAXIMUM RATINGS (Ta=25 unless otherwise noted)

Symbol	Parameter	TIP42A	TIP42B	TIP42C	Unit
V _{CBO}	Collector-Base Voltage	-60	-80	-100	V
V _{CEO}	Collector-Emitter Voltage	-60	-80	-100	V
V _{EBO}	Emitter-Base Voltage		-5		V
I _C	Collector Current -Continuous		-6		A
P _C	Collector Power Dissipation		2		W
T _J , T _{stg}	Operation Junction and Storage Temperature Range		-55to+150		°C



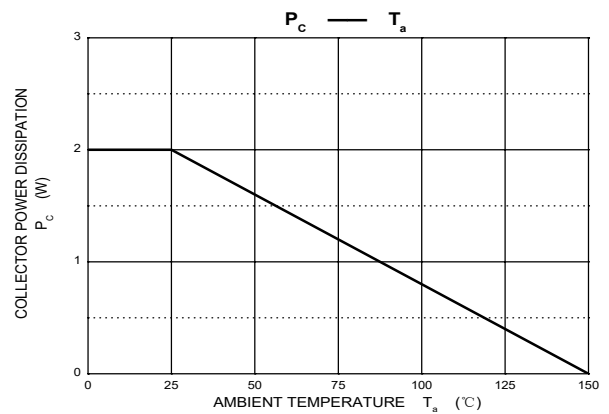
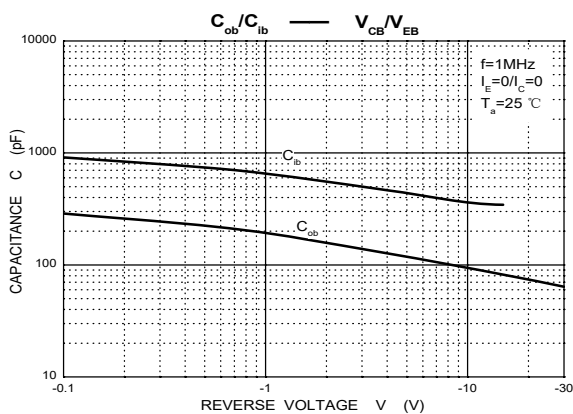
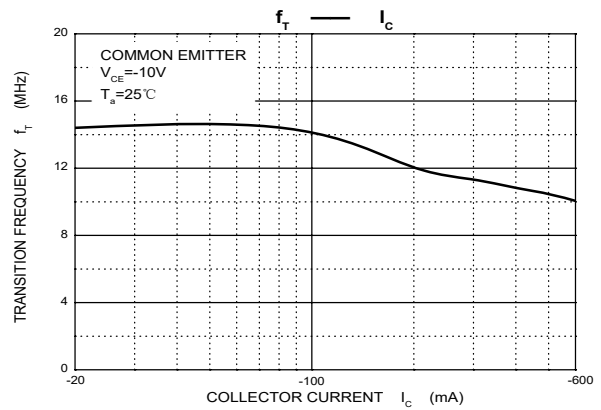
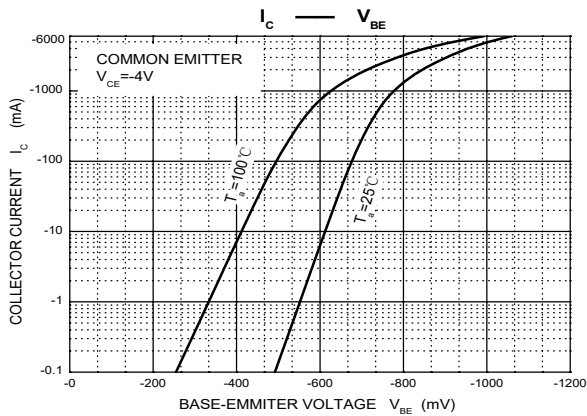
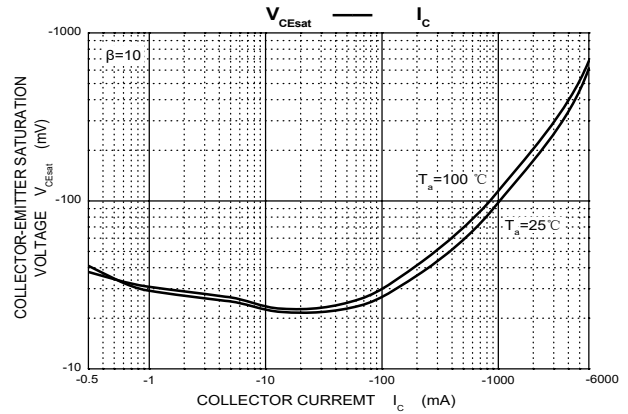
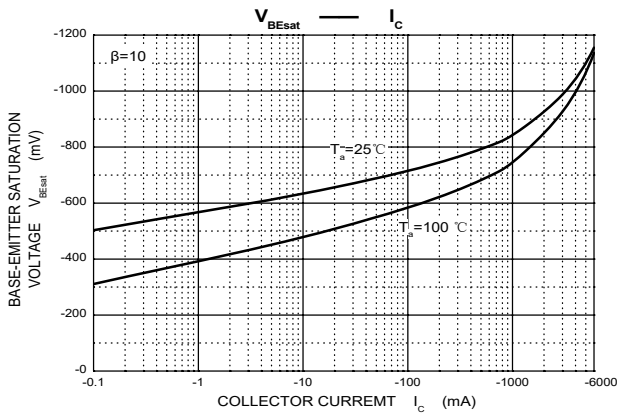
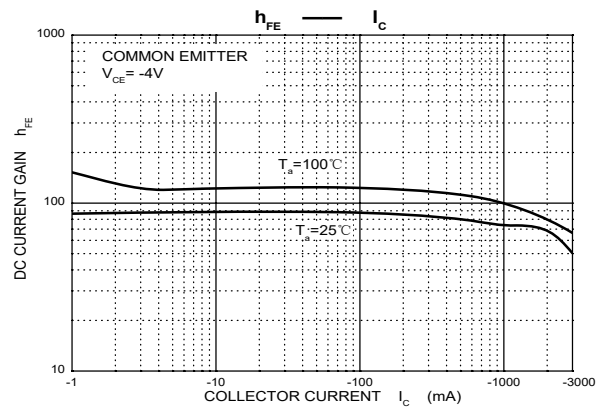
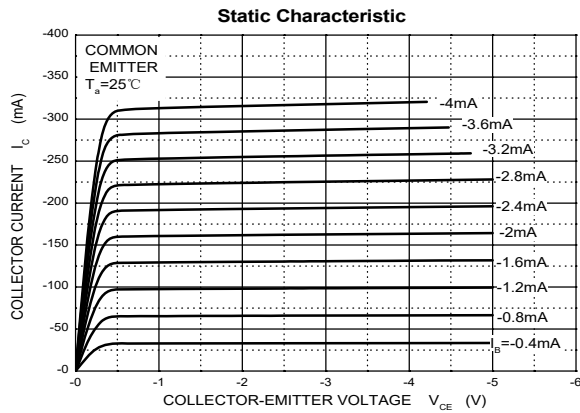
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	TIP42 TIP42A TIP42B TIP42C V _{(BR)CBO}	I _C = -1mA, I _E = 0	-40 -60 -80 -100		V
Collector-emitter breakdown voltage	TIP42 TIP42A TIP42B TIP42C V _{(BR)CEO} *	I _C = -30mA, I _B = 0	-40 -60 -80 -100		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -1mA, I _C = 0	-5		V
Collector cut-off current	TIP42 TIP42A TIP42B TIP42C I _{CB0}	V _{CB} = -40V, I _E = 0 V _{CB} = -60V, I _E = 0 V _{CB} = -80V, I _E = 0 V _{CB} = -100V, I _E = 0		-0.4	mA
Collector cut-off current	TIP42/42A TIP42B/42C I _{CEO}	V _{CE} = -30V, I _B = 0 V _{CE} = -60V, I _B = 0		-0.7	mA
Emitter cut-off current	I _{EBO}	V _{EB} = -5V, I _C = 0		-1	mA
DC current gain	h _{FE(1)}	V _{CE} = -4V, I _C = -0.3A	30		
	h _{FE(2)}	V _{CE} = -4V, I _C = -3A	15	75	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -6A, I _B = -0.6A		-1.5	V
Base-emitter voltage	V _{BE}	V _{CE} = -4V, I _C = -6A		-2	V
Transition frequency	f _T	V _{CE} = -10V, I _C = -0.5	3		MHz

*Pulse test



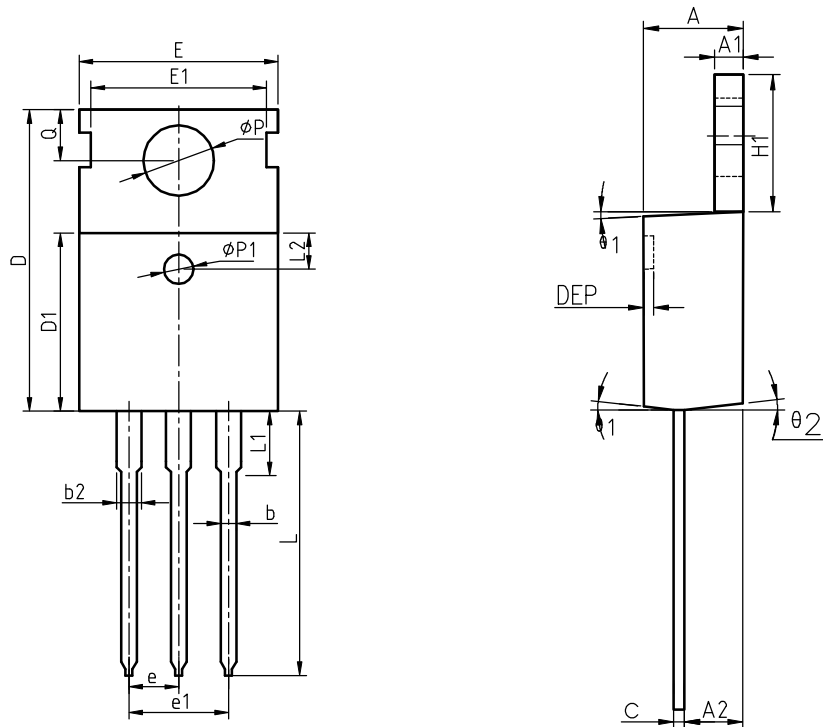
Typical Characteristics





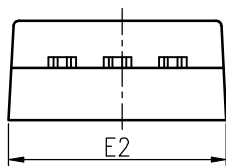
Package Information

TO-220



COMMON DIMENSIONS

SYMBOL	MIN	NOM	MAX	MIN	NOM	MAX
A	4.40	4.57	4.70	0.173	0.180	0.185
A1	1.27	1.30	1.33	0.050	0.051	0.052
A2	2.35	2.40	2.50	0.093	0.094	0.098
b	0.77	0.80	0.90	0.030	0.031	0.035
b2	1.17	1.27	1.36	0.046	0.050	0.054
c	0.48	0.50	0.56	0.019	0.020	0.022
D	15.40	15.60	15.80	0.606	0.614	0.622
D1	9.00	9.10	9.20	0.354	0.358	0.362
DEP	0.05	0.10	0.20	0.002	0.004	0.008
E	9.80	10.00	10.20	0.386	0.394	0.402
E1	-	8.70	-	-	0.343	-
E2	9.80	10.00	10.20	0.386	0.394	0.402
e		2.54	BSC		0.100	BSC
e1		5.08	BSC		0.200	BSC
H1	6.40	6.50	6.60	0.252	0.256	0.260
L	12.75	13.50	13.65	0.502	0.531	0.537
L1	-	3.10	3.30	-	0.122	0.130
L2		2.50	REF		0.098	REF
P	3.50	3.60	3.63	0.138	0.142	0.143
P1	3.50	3.60	3.63	0.138	0.142	0.143
Q	2.73	2.80	2.87	0.107	0.110	0.113
theta 1	5°	7°	9°	5°	7°	9°
theta 2	1°	3°	5°	1°	3°	5°
theta 3	1°	3°	5°	1°	3°	5°





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