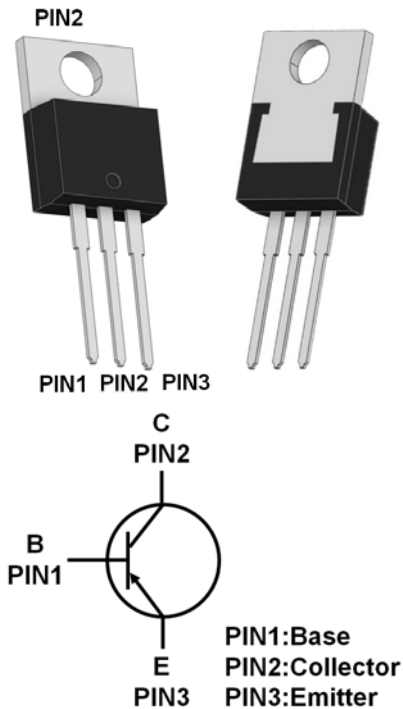


PNP Silicon Power Transistors



Features

- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Complement to TIP41C
- High switching speed

Mechanical Data

- Package: TO-220AB
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Unit Weight: 1.9g

■ Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Value
Device marking code			TIP42C
Collector-base voltage	V_{CBO}	V	-100
Collector-emitter voltage	V_{CEO}	V	-100
Emitter-base voltage	V_{EBO}	V	-5
Collector current	I_C	A	-6
Power dissipation	P_D	W	2
Thermal resistance, junction-to-ambient (Note1)	R_{thJA}	°C/W	62.5
Junction temperature	T_j	°C	-55 to +150
Storage temperature	T_{STG}	°C	-55 to +150

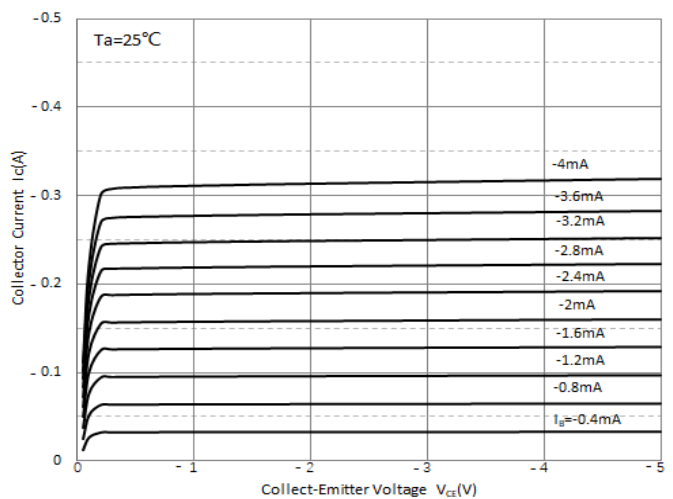
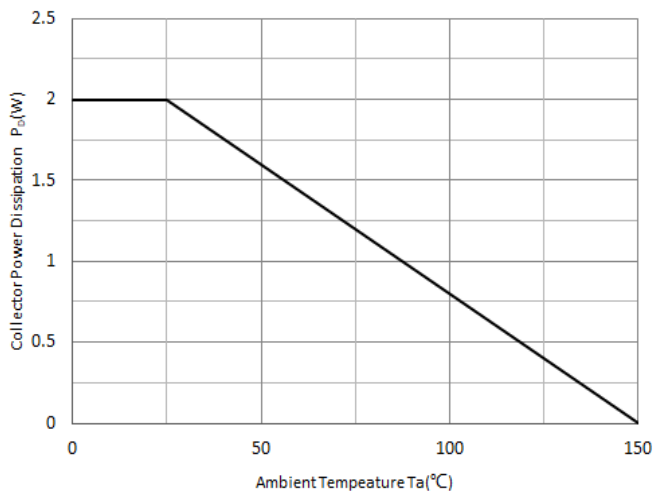
Note1: Device mounted on PCB with minimum recommended pad layout and additional heat sink (25mm x 23mm x 15mm) attached.



■ Electrical Characteristics (Ta=25°C unless otherwise noted)

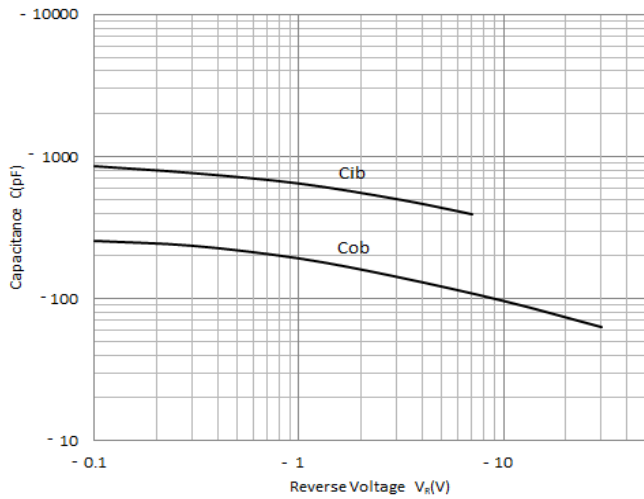
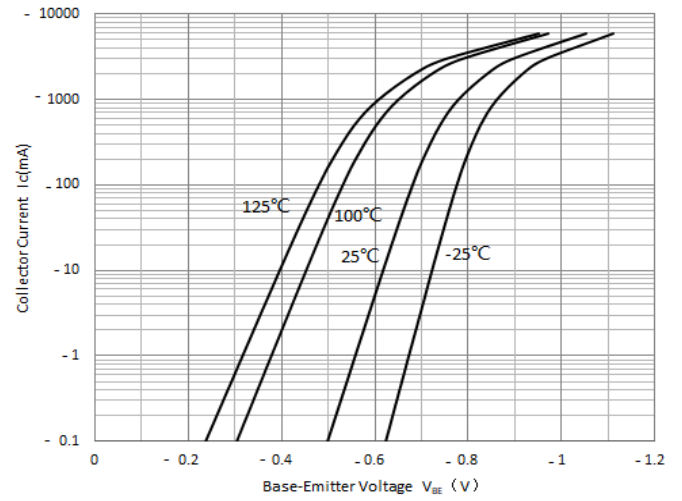
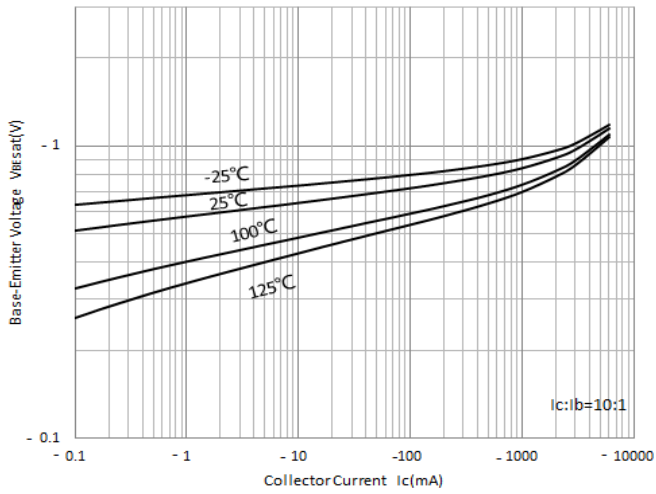
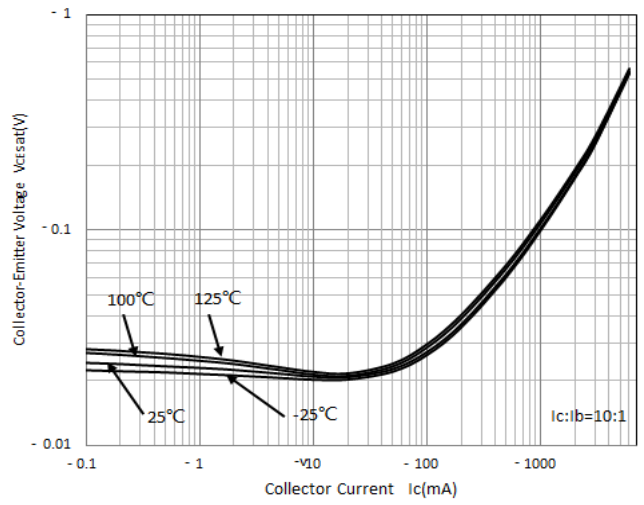
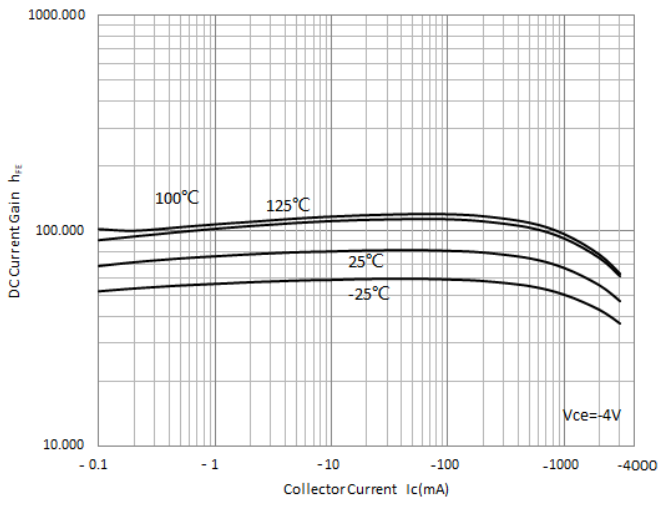
Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C = -100\mu A, I_E = 0$	-100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C = -30mA, I_B = 0$	-100		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E = -1mA, I_C = 0$	-5		
Collector-base cut-off current	I_{CBO}	mA	$V_{CB} = -100V$			-0.1
Collector cutoff current	I_{CEO}	mA	$V_{CE} = -60V$			-0.7
Emitter-base cut-off current	I_{EBO}	mA	$V_{EB} = -5V$			-1
DC current gain	h_{FE}		$V_{CE} = -4V, I_C = -0.3A$	30		
			$V_{CE} = -4V, I_C = -3A$	15		75
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C = -6A, I_B = -0.6A$			-1.5
Base-Emitter Voltage	V_{BE}	V	$V_{CE} = -4V, I_C = -3A$			-2.0
Collector-base output capacitance	C_{ob}	pF	$V_{CB} = -10V, I_E = 0A, f = 1MHz$		96	

■ Characteristics(Typical)





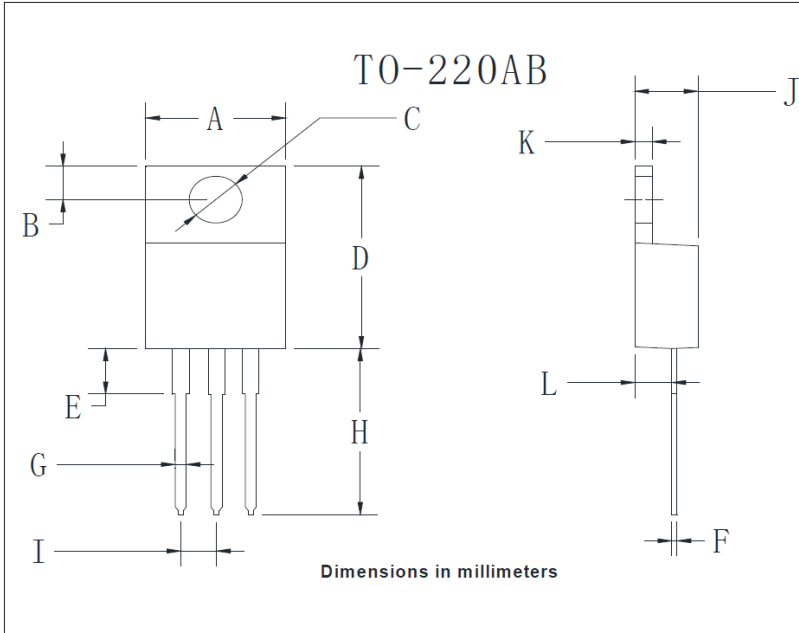
■ Characteristics(Typical)



■ Ordering Information (Example)

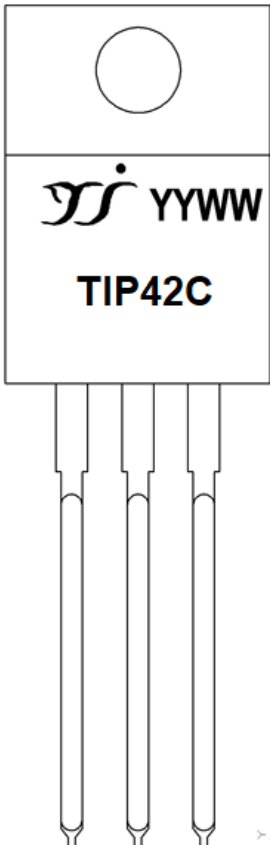
PREFERED P/N	PACKING CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
TIP42C	B1	50/Tube	1000	2000	Tube

■ TO-220AB Package information



TO-220AB		
Dim	Min	Max
A	9.95	10.35
B	2.55	2.95
C	3.8	4.0
D	14.95	15.25
E	3.75	4.25
F	0.26	0.5
G	0.68	0.94
H	13.4	13.9
I	2.35	2.65
J	4.38	4.78
K	1.14	1.4
L	2.37	2.79

■ Marking code



YangJie LOGO
 YYWW: YY, years; WW, week.
 For example, 24 represents 2024; 01 represents the first week of this year.
 TIP42C: Product model.



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, life-saving, lifesustaining, or military, Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.