Micro Commercial Components
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2SB1412-P
2SB1412-Q
2SB1412-R

PNP Silicon Epitaxial Transistors

Features

- Low Collector Saturation Voltage
- Execllent current-to-gain characteristics
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: B1412
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{CBO}	Collector-Base Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-6.0	V
I_C	Collector Current	-5.0	A
P_C	Collector power dissipation	1.0	W
T_J	Junction Temperature	150	℃
T_{STG}	Storage Temperature	-55 to +150	℃

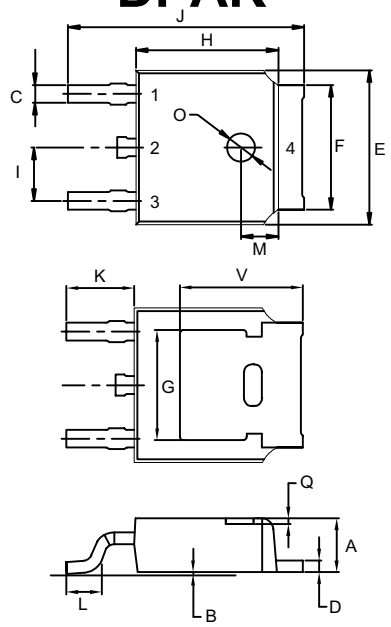
Electrical Characteristics @ 25℃ Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)CBO}$	Collector-base Breakdown Voltage (I_C=-50μAdc, I_E=0)	-30	---	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I_C=-1mAdc, I_B=0)	-20	---	---	Vdc
$V_{(BR)EBO}$	Emitter-base Breakdown Voltage (I_E=-50μAdc, I_C=0)	-6	---	---	Vdc
I_{CBO}	Collector-Base Cutoff Current (V_{CB}=-20Vdc,I_E=0)	---	---	-0.5	μAdc
I_{EBO}	Emitter-Base Cutoff Current (V_{EB}=-5Vdc, I_C=0)	---	---	-0.5	μAdc
$h_{FE(1)}$	DC Current Gain (I_C=-0.5Adc, V_{CE}=-2.0Vdc)	82	---	390	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=-4Adc, I_B=-100mAdc)	---	---	-1.0	Vdc
f_T	Transition Frequency (V_{CE}=-6Vdc, I_C=-500mAdc,f=30MHz)		120	---	MHz
C_{ob}	Collector output capacitance (V_{CB}=-20Vdc, I_E=0,f=1.0MHz)	---	60	---	pF

CLASSIFICATION OF $H_{FE(1)}$

Rank	P	Q	R
Range	82-180	120-270	180-390

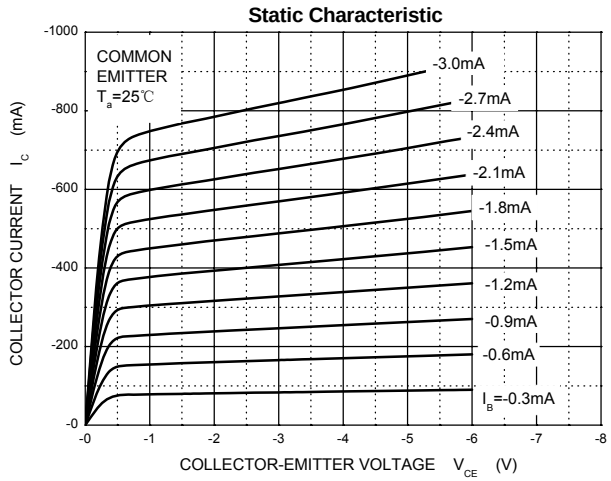
DPAK

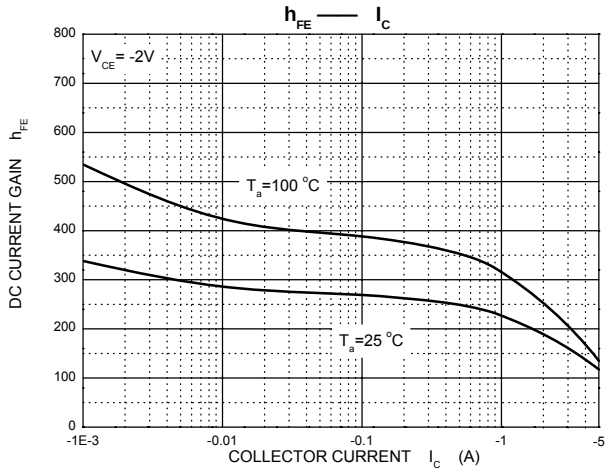


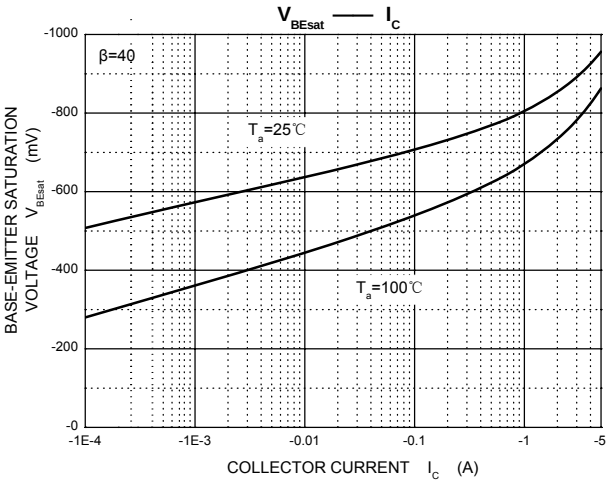
PIN 1. BASE
PIN 2.4 COLLECTOR
PIN 3. EMITTER

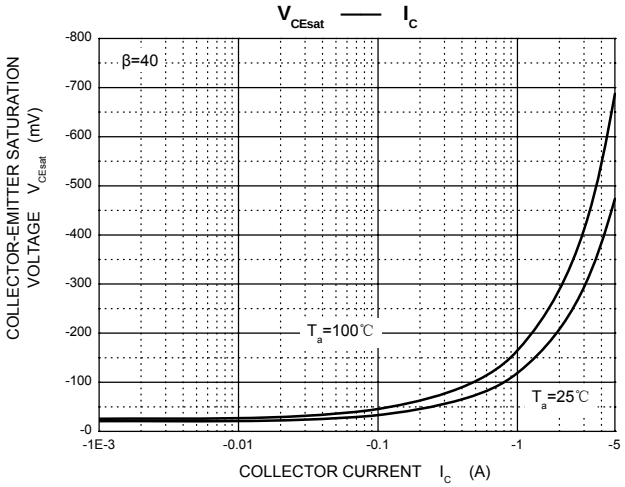
DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		

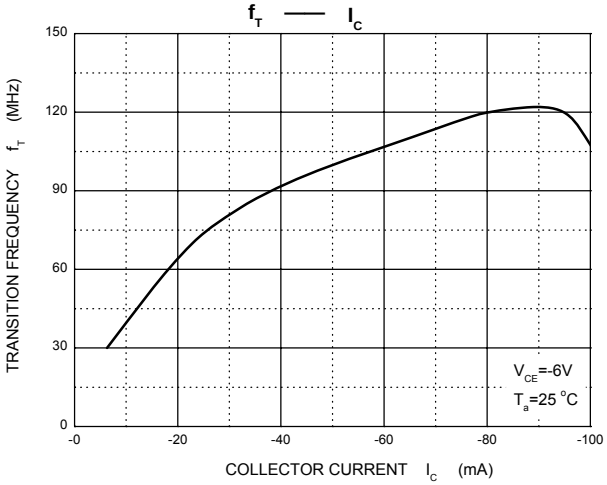
Typical Characteristics

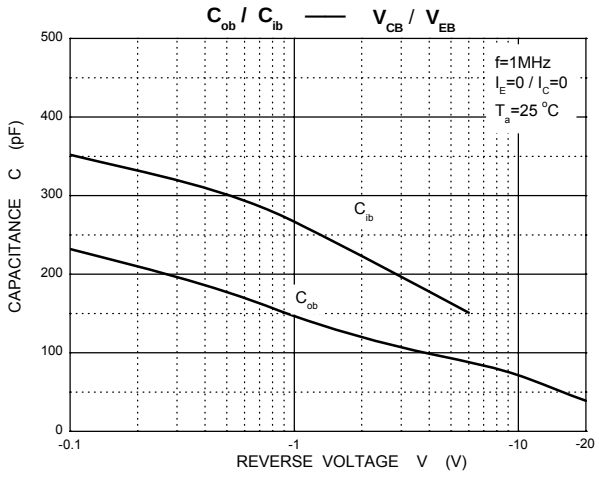












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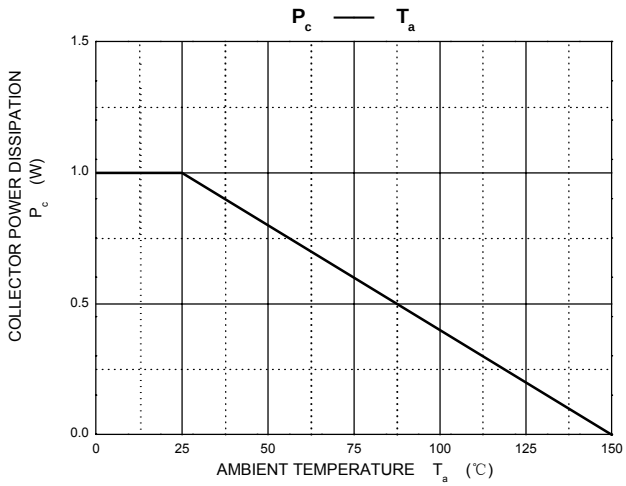

Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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