



Micro Commercial Components



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

**2SC4116-O**  
**2SC4116-Y**  
**2SC4116-GR**  
**2SC4116-BL**

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High voltage and high current
- Complementary to 2SA1586
- Halogen free available upon request by adding suffix "-HF"

## Maximum Ratings

Symbol	Rating	Rating	Unit
V <sub>CEO</sub>	Collector-Emitter Voltage	60	V
V <sub>CBO</sub>	Collector-Base Voltage	50	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current	150	mA
P <sub>C</sub>	Collector power dissipation	100	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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### OFF CHARACTERISTICS

I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> = 60Vdc)	---	---	100	nAdc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> = 5.0Vdc)	---	---	100	nAdc

### ON CHARACTERISTICS

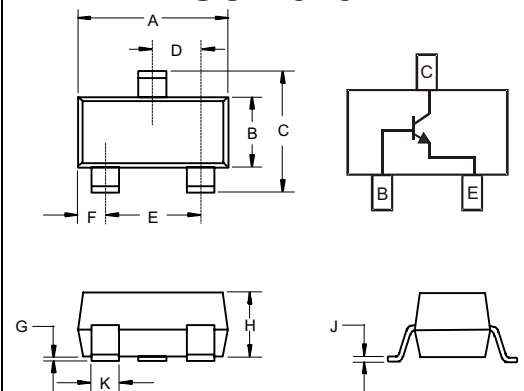
BV <sub>CBO</sub>	Collector-base breakdown voltage (I <sub>C</sub> =100µAdc)	60	---	---	Vdc
BV <sub>CEO</sub>	Collector-emitter breakdown voltage (I <sub>C</sub> = 1mAdc)	50	---	---	Vdc
BV <sub>EBO</sub>	Emitter-base breakdown voltage (I <sub>E</sub> =100µAdc)	5	---	---	Vdc
h <sub>FE</sub>	DC Current Gain (I <sub>C</sub> =1mAdc, V <sub>CE</sub> =-6.0Vdc)	70	---	700	---
V <sub>CE(sat)</sub>	Collector Saturation Voltage (I <sub>C</sub> =-50mAdc, I <sub>B</sub> =-5.0mAdc)	---	---	0.25	Vdc
C <sub>ob</sub>	Output Capacitance (V <sub>CB</sub> =10.0Vdc, I <sub>E</sub> =0, f=1.0MHz)	---	---	3.5	pF
f <sub>T</sub>	Gain Bandwidth product (V <sub>CE</sub> =10Vdc, I <sub>E</sub> =1mAdc)	---	80	---	MHz

### h<sub>FE</sub> CLASSIFICATION

Rank	O	Y	GR	BL
Marking	LO	LY	LG	LL
Range	70-140	120-240	200-400	350-700

## NPN Plastic-Encapsulate Transistors

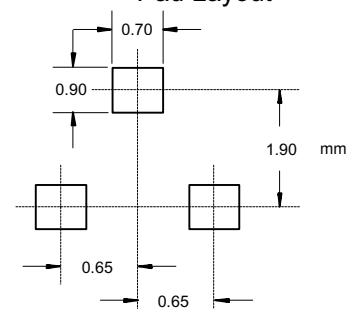
### SOT-323



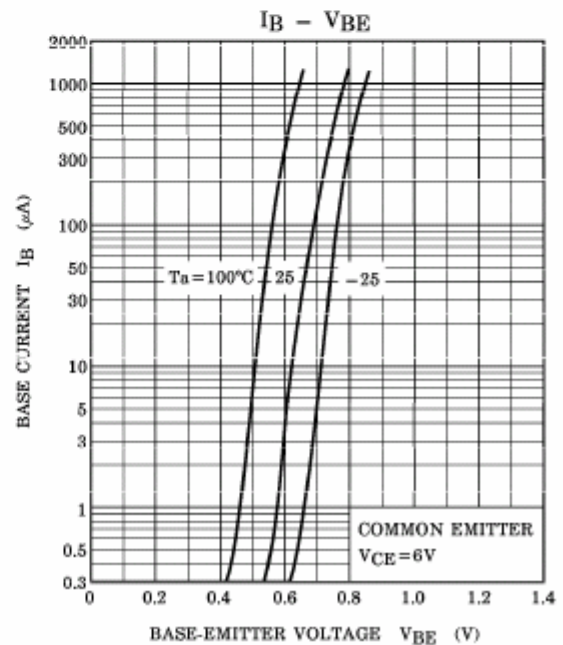
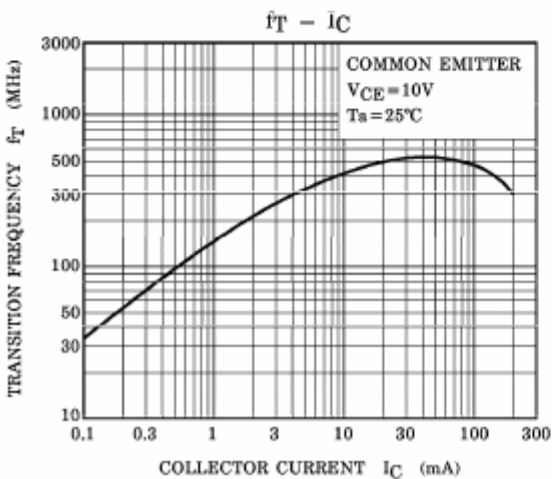
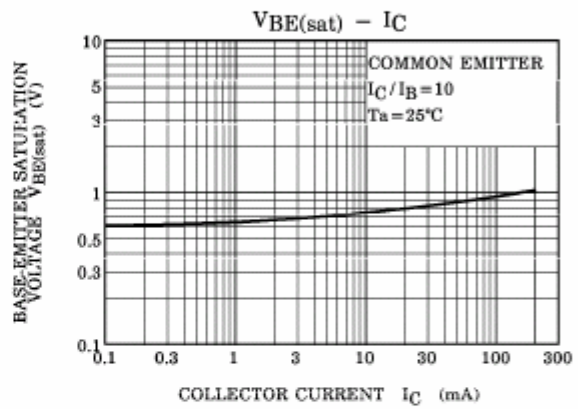
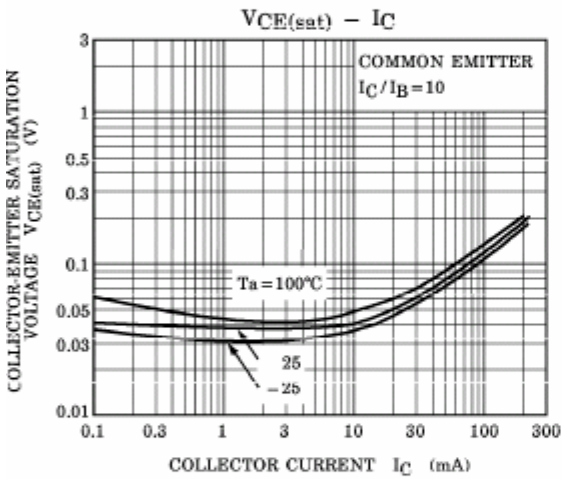
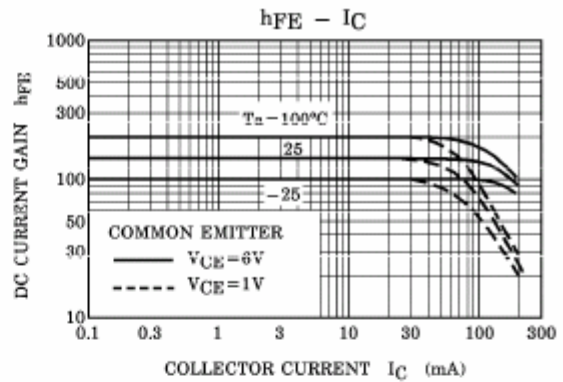
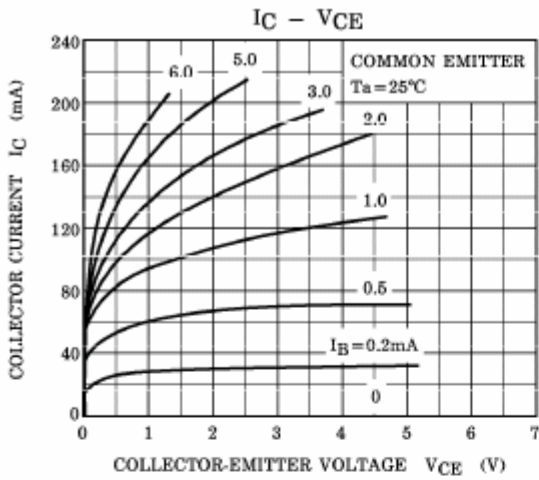
### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.006	.016	.15	.40	

### Suggested Solder Pad Layout



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Typical Characteristics

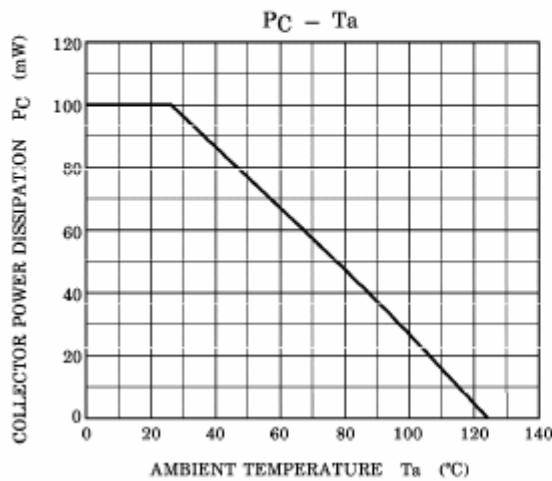
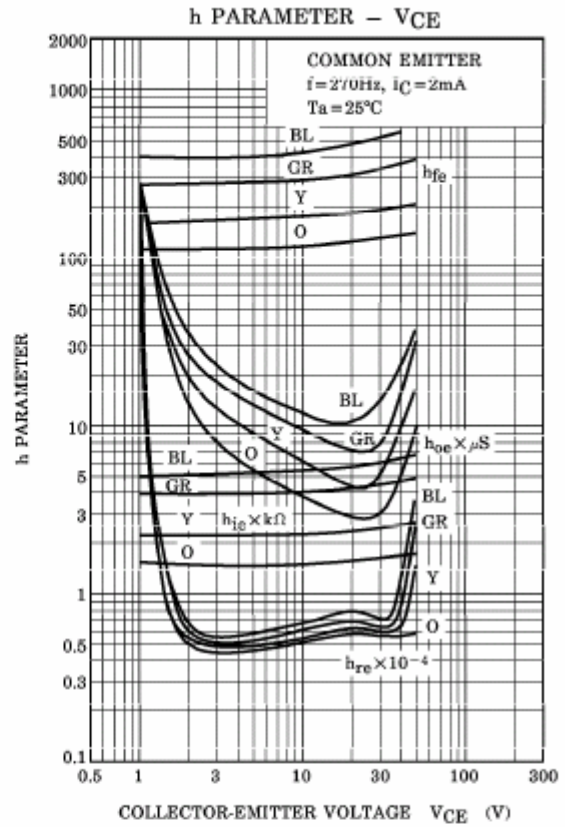
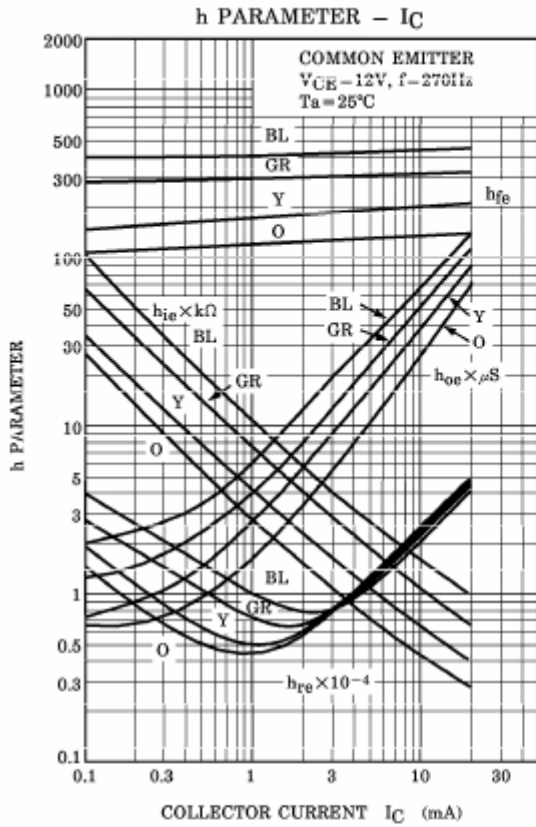


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Typical Characteristics



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### Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

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

#### \*\*\*IMPORTANT NOTICE\*\*\*

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