



Micro Commercial Components



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Features

- Halogen free available upon request by adding suffix "-HF"
- 2SC1815 is NPN Silicon Epitaxial Transistor Designed for RF, AF Amplifier and General Purpose Applications.
- Capable of 0.4Watts of Power Dissipation.
- Collector-current 0.15A
- Collector-base Voltage 60V
- Marking : C1815
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Operating and storage junction temperature range:-55°C to +125°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=0.1mA, I_B=0$)	50		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A, I_E=0$)	60		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A, I_C=0$)	5		Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=60Vdc, I_E=0A$)		0.1	μA
I_{CEO}	Collector Cutoff Current ($V_{CB}=50Vdc, I_E=0A$)		0.1	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0Vdc, I_C=0A$)		0.1	μA

ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain* ($I_C=2.0mA, V_{CE}=6.0Vdc$)	70	700	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=100mA, I_B=10mA$)		0.25	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=100mA, I_B=10mA$)		1.0	Vdc
V_{BE}	Base-Emitter Voltage ($I_E=310mA$)	---	1.45	Vdc

SMALL-SIGNAL CHARACTERISTICS

f_T	Transistor Frequency ($I_C=1.0mA, V_{CE}=10Vdc, f=30MHz$)	80		MHz
C_{OB}	Collector Output Capacitance ($V_{CB}=10Vdc, I_E=0, f=1MHz$)	---	3.5	pF
NF	Noise Figure ($V_{CE}=6Vdc, I_C=0.1mA, f=1KHz, R_g=10K$)	---	10	dB

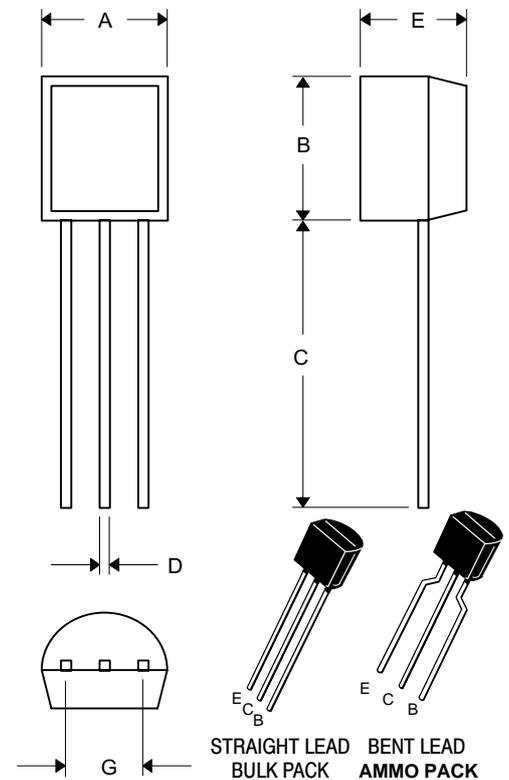
CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

2SC1815-O
2SC1815-Y
2SC1815-GR
2SC1815-BL

NPN Silicon Epitaxial Transistor

TO-92



DIMENSIONS

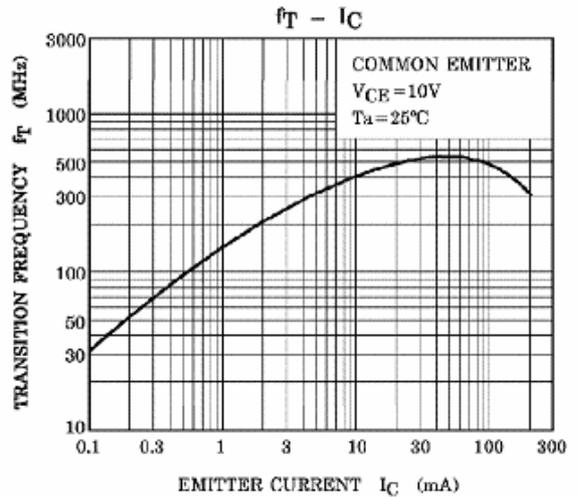
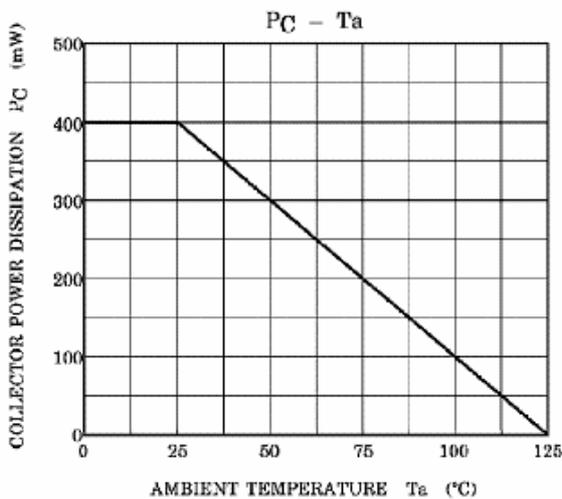
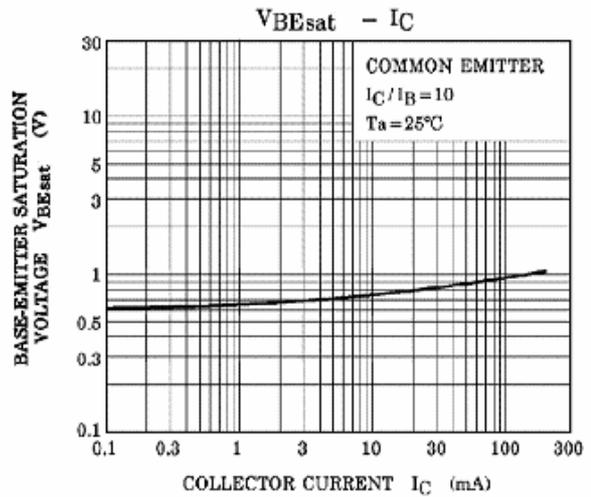
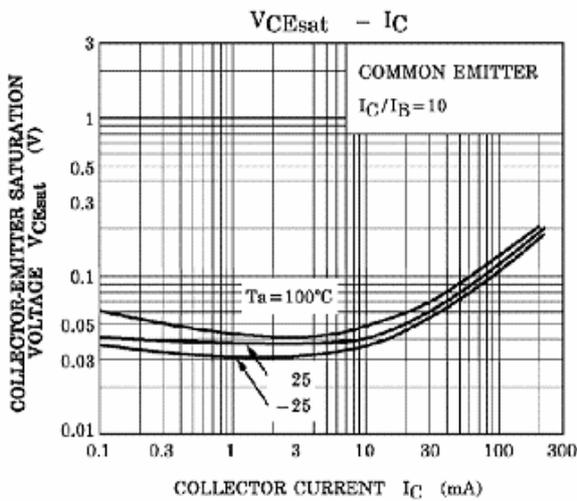
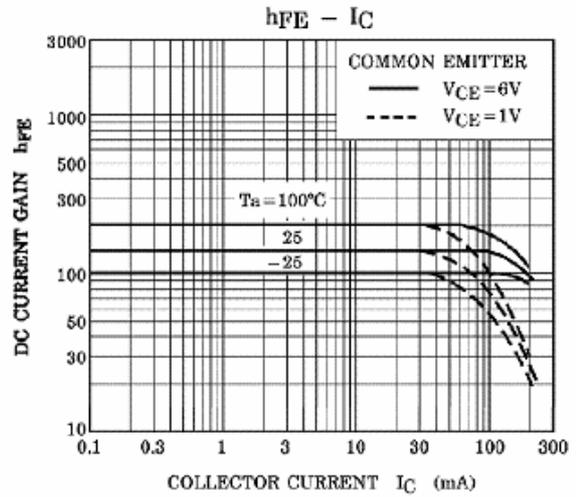
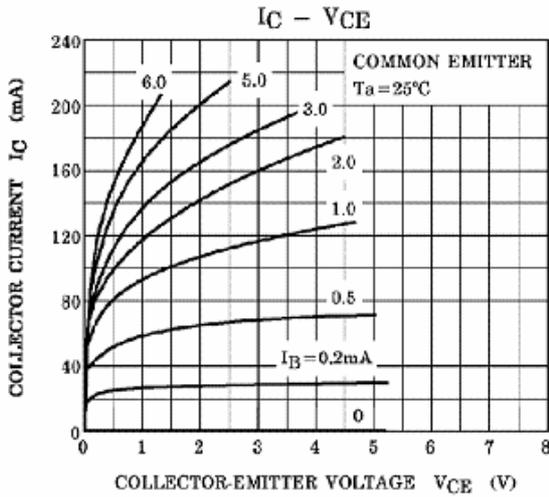
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	

* For ammo packing detailed specification, click here to visit our website of product packaging for details.

www.mccsemi.com

2SC1815

Typical Characteristics





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Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

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

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