



Micro Commercial Components



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

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

## Features

- 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
<b>OFF CHARACTERISTICS</b>				
$V_{(BR)CEO}$	Collector-Emmitter Breakdown Voltage ( $I_C=0.1mA_{dc}, I_E=0$ )	50		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=100\mu A_{dc}, I_E=0$ )	60		Vdc
$V_{(BR)EBO}$	Emmitter-Base Breakdown Voltage ( $I_E=100\mu A_{dc}, I_C=0$ )	5		Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=60V_{dc}, I_E=0A_{dc}$ )		0.1	$\mu A_{dc}$
$I_{CEO}$	Collector Cutoff Current ( $V_{CB}=50V_{dc}, I_E=0A_{dc}$ )		0.1	$\mu A_{dc}$
$I_{EBO}$	Emmitter Cutoff Current ( $V_{EB}=5.0V_{dc}, I_C=0A_{dc}$ )		0.1	$\mu A_{dc}$

## ON CHARACTERISTICS

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

## SMALL-SIGNAL CHARACTERISTICS

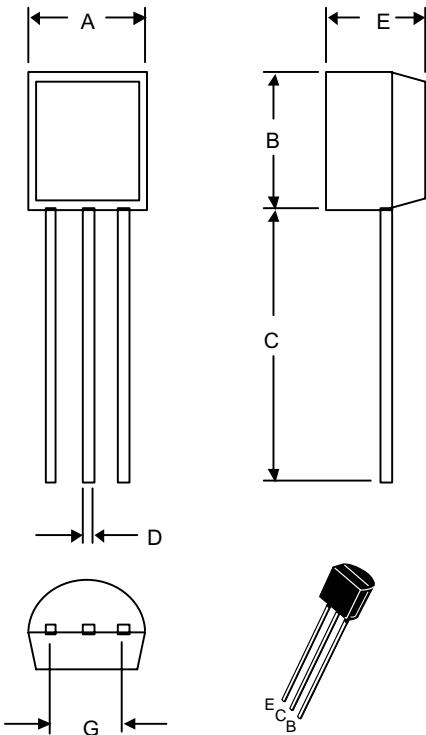
$f_T$	Transistor Frequency ( $I_C=1.0mA_{dc}, V_{CE}=10V_{dc}, f=30MHz$ )	80		MHz
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## CLASSIFICATION OF $h_{FE(1)}$

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

## NPN Silicon Epitaxial Transistor

### TO-92

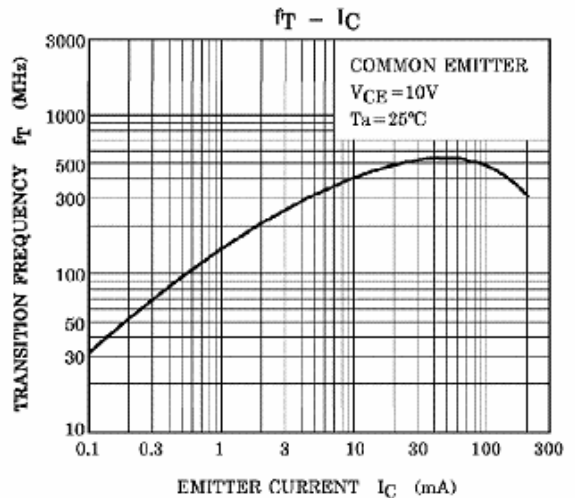
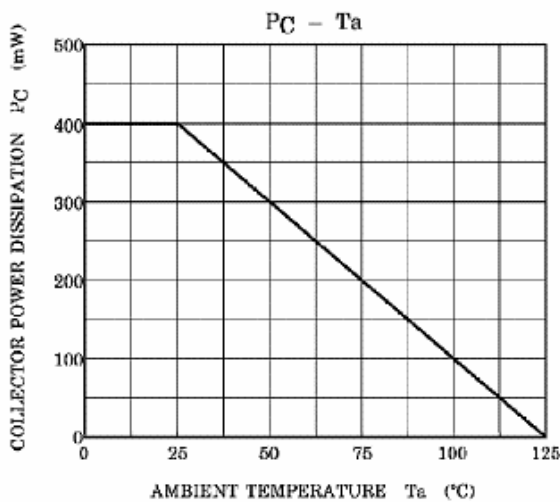
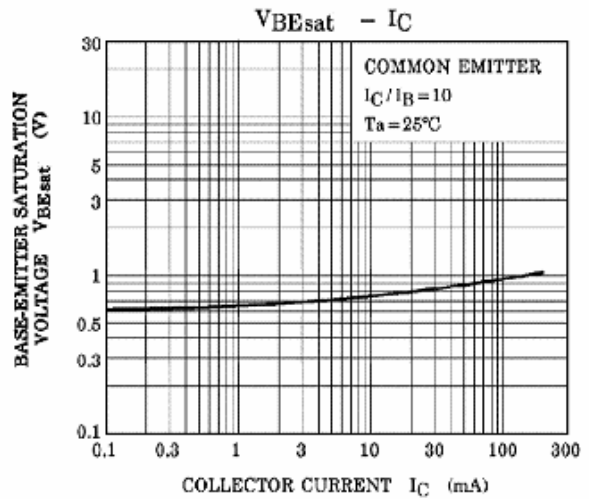
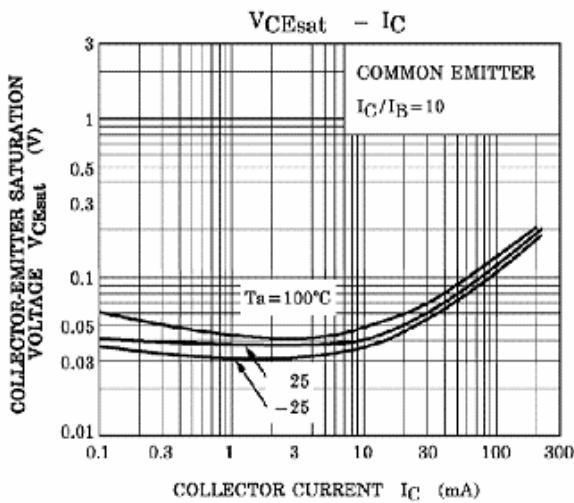
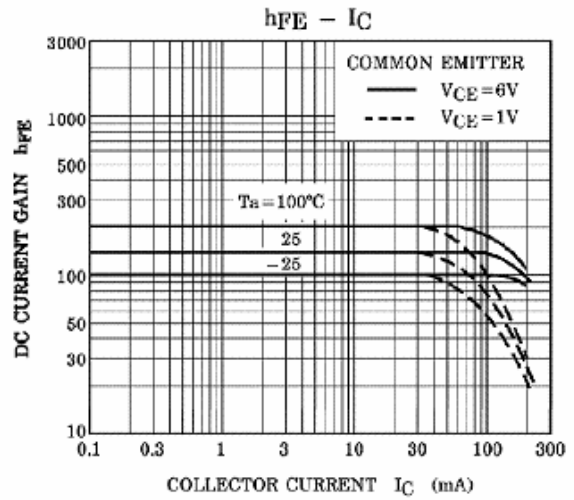
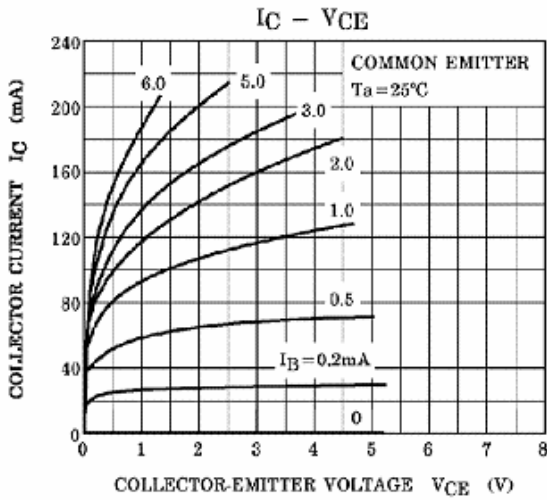


DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.010	.104	2.44	2.64	

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2SC1815

Typical Characteristics





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### Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 2Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

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