



Micro Commercial Components



Micro Commercial Components  
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# 2SC1959-O 2SC1959-Y 2SC1959-GR

## Features

- Audio frequency low power amplifier applications, driver stage amplifier applications, switching applications
- Excellent  $h_{FE}$  Linearity:  $h_{FE(2)} = 25(\text{Min.})$ ;  $V_{CE} = 6.0\text{V}$ ,  $I_C = 400\text{mA}$
- 1 Watt Amplifier applications
- Complementary to 2SA562TM.
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: C1959
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- 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 Breakdown Voltage	35	V
$V_{EBO}$	Emitter-Base Voltage	5.0	V
$I_C$	Collector Current	500	mA
$I_B$	Base Current	100	mA
$P_C$	Collector Power Dissipation	500	mW
$T_J$	Operating Junction Temperature	-55 to +150	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}\text{C}$

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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### OFF CHARACTERISTICS

$I_{CBO}$	Collector-Base Cutoff Current ( $V_{CB} = 35\text{Vdc}$ , $I_E = 0$ )	---	---	0.1	$\mu\text{Adc}$
$I_{EBO}$	Emitter-Base Cutoff Current ( $V_{EB} = 5.0\text{Vdc}$ , $I_C = 0$ )	---	---	0.1	$\mu\text{Adc}$

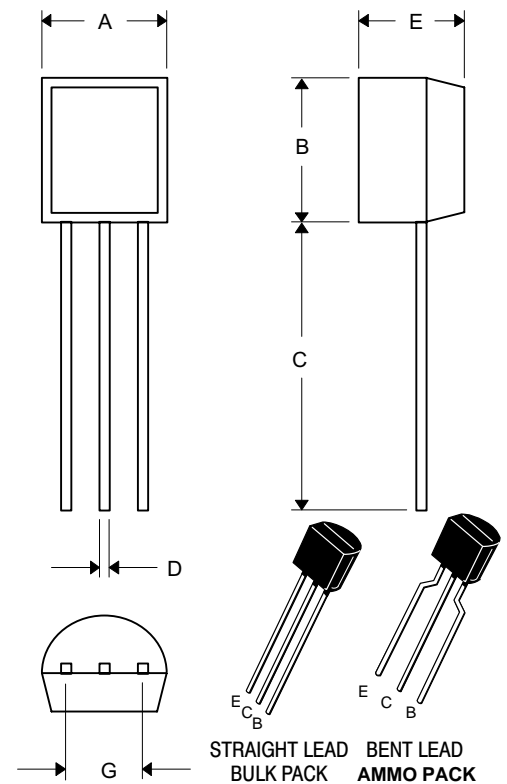
### ON CHARACTERISTICS

$h_{FE-1}$	DC Current Gain* ( $I_C = 100\text{mA}$ , $V_{CE} = 1.0\text{Vdc}$ )	70	---	400	---
$h_{FE-2}$	DC Current Gain* ( $I_C = 400\text{mA}$ , $V_{CE} = 6.0\text{Vdc}$ )	25	---	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C = 100\text{mA}$ , $I_B = 10\text{mA}$ )	---	0.1	0.25	Vdc
$V_{BE}$	Base-Emitter Voltage ( $I_C = 100\text{mA}$ , $V_{CE} = 1.0\text{Vdc}$ )	---	0.8	1.0	Vdc
$f_T$	Transition Frequency ( $V_{CE} = 6.0\text{Vdc}$ , $I_C = 20\text{mA}$ )	200	300	---	MHz
$C_{OBO}$	Collector Output Capacitance ( $V_{CB} = 6.0\text{Vdc}$ , $I_C = 0$ , $f = 1.0\text{MHz}$ )	---	7.0	---	pF

Note:  $h_{FE(1)}$  Classification O: 70~140, Y: 120~240, GR: 200~400  
 $h_{FE(2)}$  Classification O: 25 (Min.), Y: 40 (Min.)

## Power Silicon NPN Transistor

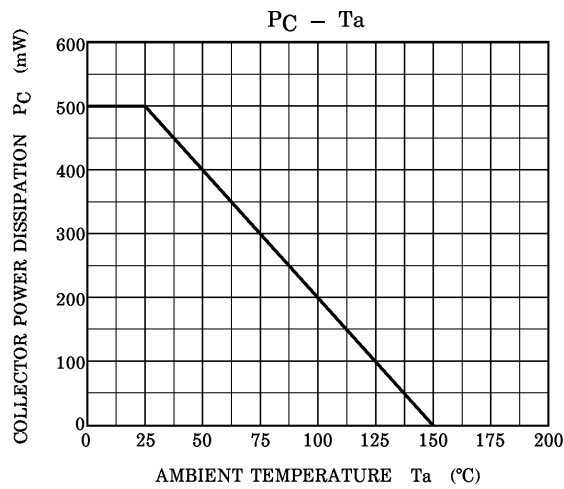
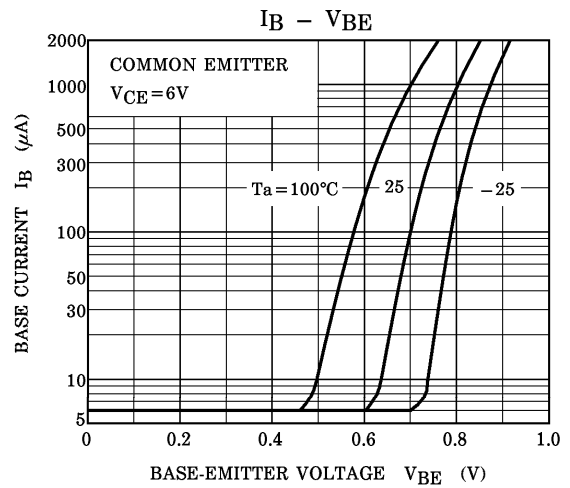
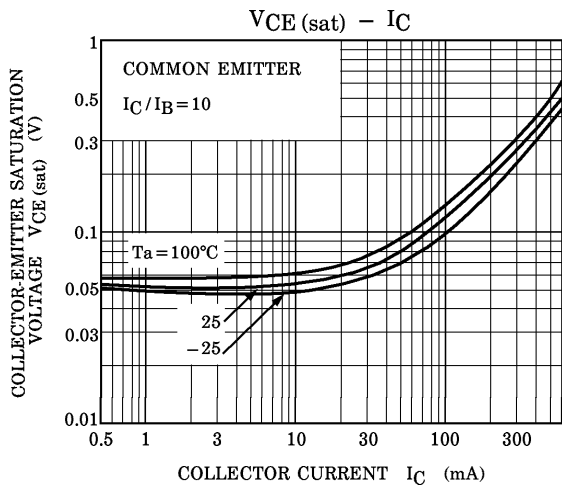
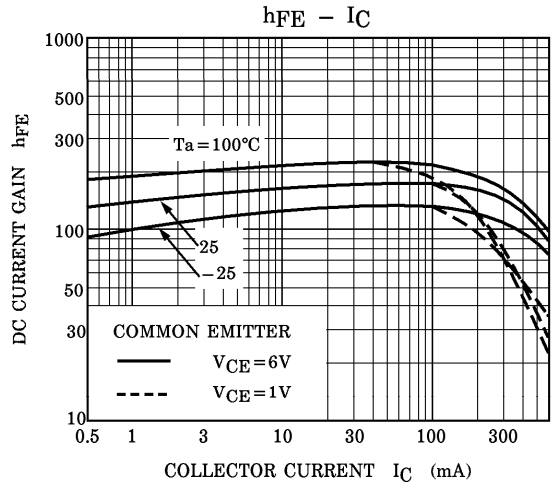
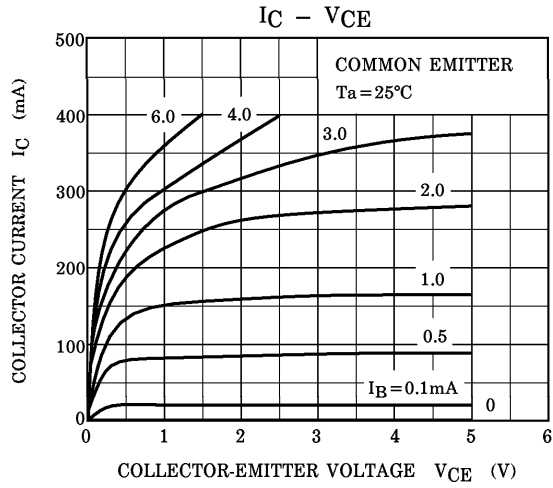
### TO-92



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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	Bent Lead

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

# 2SC1959





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### Ordering Information :

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

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

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