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

Power Silicon NPN Transistor

Features

- Audio frequency low power amplifier applications, driver stage amplifier applications, switching applications
- Excellent h_{FE} Linearity: $h_{FE(2)}$ =25(Min.) : V_{CE}=6.0V, I_C=400mA
- 1 Watt Amplifier applications
- Complementary to 2SA562TM.
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1
- Marking: C1959
- Lead Free Finish/Rohs Compliant ("P"Suffix designates Compliant. See ordering information)

Maximum Ratings

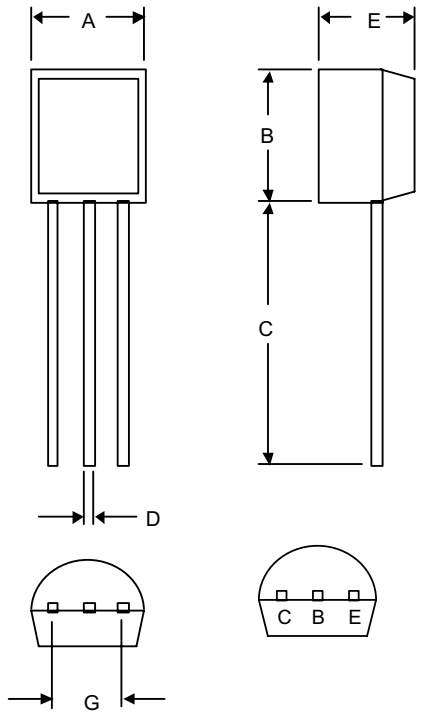
Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	30	V
V_{CBO}	Collector-Base Breakdown Voltage	35	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current	500	mA
I_B	Base Current	100	mA
P_C	Collector Power Dissipation	500	mW
T_J	Operating Junction Temperature	-55 to +150	^{O}C
T_{STG}	Storage Temperature	-55 to +150	^{O}C

Electrical Characteristics @ 25ºC Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
OFF CHARACTERISTICS					
I_{CBO}	Collector-Base Cutoff Current (V_{CB}=35Vdc, I_E=0)	---	---	0.1	uAdc
I_{EBO}	Emitter-Base Cutoff Current (V_{EB}=5.0Vdc, I_C=0)	---	---	0.1	uAdc
ON CHARACTERISTICS					
h_{FE-1}	DC Current Gain* (I_C=100mAdc, V_{CE}=1.0Vdc)	70	---	400	---
h_{FE-2}	DC Current Gain* (I_C=400mAdc, V_{CE}=6.0Vdc)	25	---	----	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=100mAdc, I_B=10mAdc)	---	0.1	0.25	Vdc
V_{BE}	Base-Emitter Voltage (I_C=100mAdc, V_{CE}=1.0Vdc)	---	0.8	1.0	Vdc
f_T	Transition Frequency (V_{CE}=6.0Vdc, I_C=20mAdc)	200	300	---	MH_Z
C_{OBO}	Collector Output Capacitance (V_{CB}=6.0Vdc, I_E=0, f=1.0MH_Z)	---	7.0	---	pF

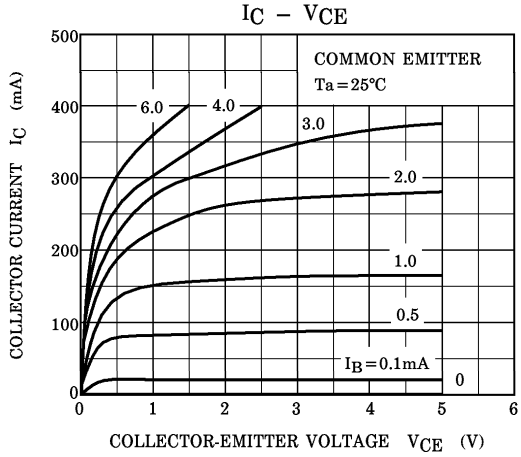
Note: $h_{FE(1)}$ Classification O: 70~140, Y: 120~240, GR: 200~400
$h_{FE(2)}$ Classification O: 25 (Min.), Y: 40 (Min.)

TO-92

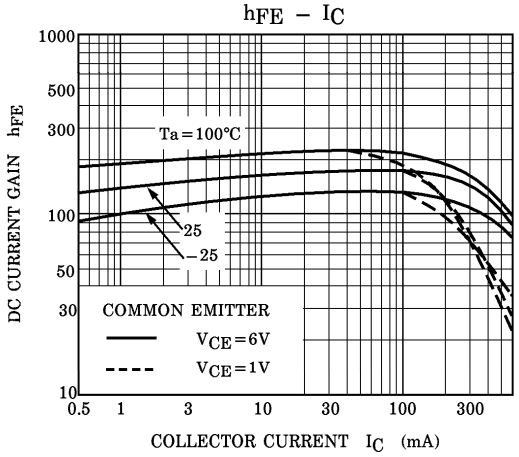


DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.010	.104	2.44	2.64	

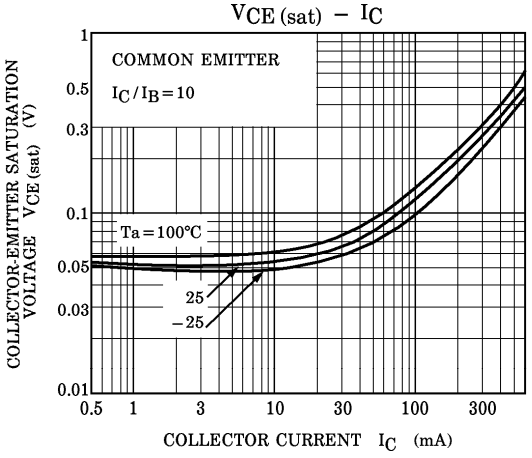
I_C – V_{CE}



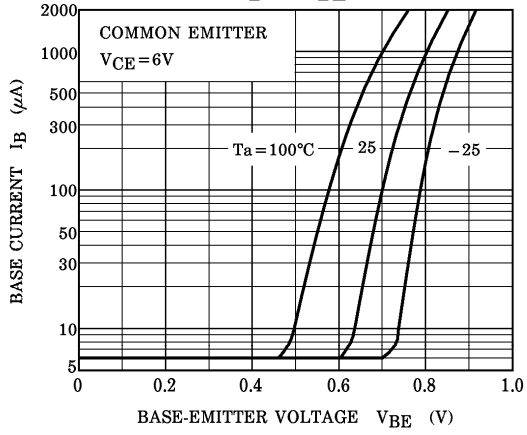
h_{FE} – I_C



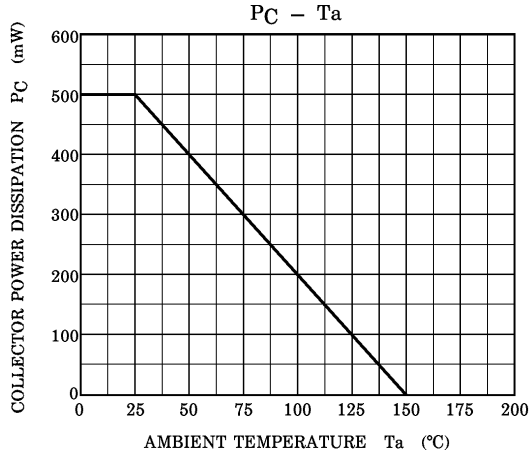
$V_{CE(sat)}$ – I_C



I_B – V_{BE}



P_C – Ta



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Ordering Information

Device	Packing
(Part Number)-AP	Ammo Packing;2Kpcs/AmmoBox
(Part Number)-BP	Bulk;1Kpcs/Bag

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