



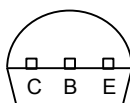
Micro Commercial Components
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2SC1959

Features

- Audio frequency low power amplifier applications, driver stage amplifier applications, switching applications
- Excellent h_{FE} Linearity: $h_{FE(2)} = 25(\text{Min.})$; $V_{CE} = 6.0V$, $I_C = 400mA$
- 1 Watt Amplifier applications
- Complementary to 2SA562TM.

Pin Configuration
Bottom View



Power Silicon NPN Transistor

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	30	V
V_{CBO}	Collector-Base Breakdown Voltage	35	V
V_{EB0}	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	$^{\circ}C$
T_{STG}	Storage Temperature	-55 to +150	$^{\circ}C$

Electrical Characteristics @ 25 $^{\circ}C$ Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

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

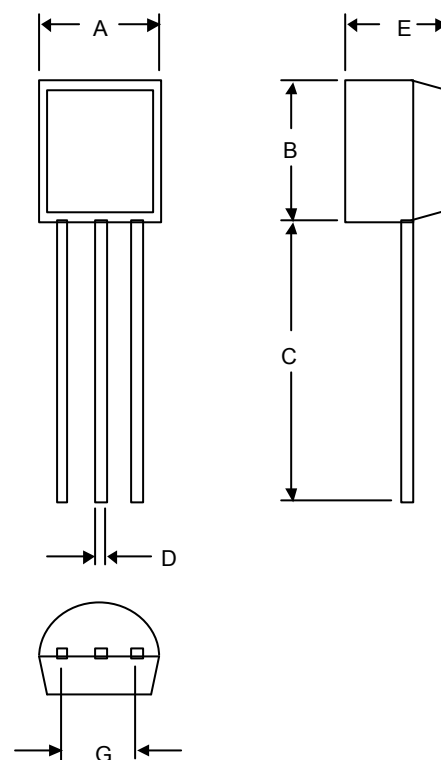
ON CHARACTERISTICS

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

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

$h_{FE(1)}$ Classification O: 25 (Min.), Y: 40 (Min.)

TO-92



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.46	4.70	
C	.500	---	12.7	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	

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M.C.C.

