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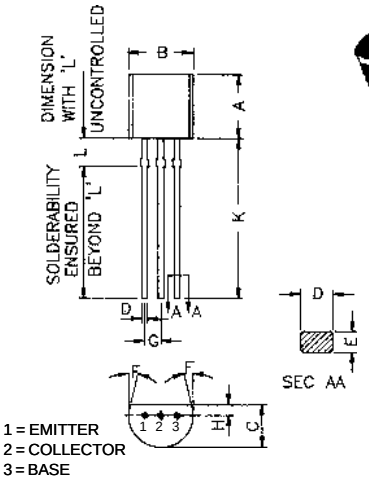
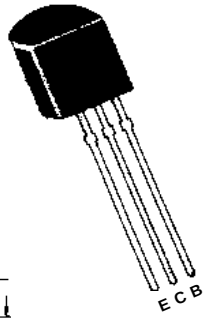
TO-92 Plastic Package

CSA970
CSC2240

CSA 970 PNP SILICON PLANAR EPITAXIAL TRANSISTORS
CSC 2240 NPN SILICON PLANAR EPITAXIAL TRANSISTORS

Low Noise Audio Amplifier





DIM	MIN	MAX
A	4,32	5,33
B	4,45	5,20
C	3,18	4,19
D	0,41	0,55
E	0,35	0,50
F	5 DEG	
G	1,14	1,40
H	1,14	1,53
K	12,70	–
L	1.982	2.082

ALL DIMENSIONS IN M.M.

ABSOLUTE MAXIMUM RATINGS

Rating	*Symbol*	*Value*	*Unit*
Collector Base Voltage	V_{CBO}	*120*	*V*
Collector Emitter Voltage	V_{CEO}	*120*	*V*
Emitter Base Voltage	V_{EBO}	*5*	*V*
Collector Current Continuous	I_C	*100*	*mA*
Emitter Current	I_E	*100*	*mA*
Power Dissipation	P_D	*300*	*mW*
Operating and Storage Junction Temperature Range	T_j, T_{stg}	*-55 to +150*	*°C*

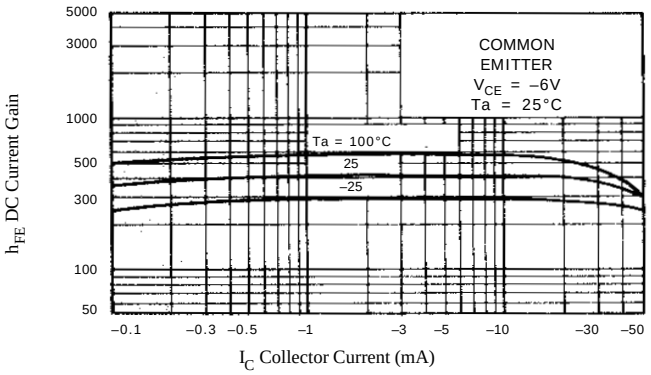
ELECTRICAL CHARACTERISTICS *(Ta = 25 °C unless otherwise specified)*

Characteristic		***Symbol***	***Min***	***Typ***	***Max***	***Unit***
Collector Cutoff Current						
V_{CB}=120V, I_E=0		I_{CBO}	-	-	100	nA
Emitter Cutoff Current						
V_{EB}=5V, I_C=0		I_{EBO}	-	-	100	nA
Collector Emitter Voltage						
I_C=1mA, I_B=0		BV_{CEO}	120	-	-	V
D.C. Current Gain						
V_{CE}=6V, I_C=2mA		h_{FE}	200	-	700	
Collector Emitter Saturation Voltage						
I_C=10mA, I_B=1mA		$V_{CE(sat)}$	-	-	0.3	V
Base Emitter On Voltage						
V_{CE}=6V, I_C=2mA		$V_{BE\ (on)}$	-	0.65	-	V
DYNAMIC CHARACTERISTICS						
Transition Frequency						
V_{CE}=6V, I_C=1mA		f_T	-	100	-	MHz
Collector Output Capacitance						
V_{CB}=10V, I_E=0, f=1MHz	***CSA970***	C_{ob}	-	4.0	-	pF
	CSC2240		-	3.0	-	pF
Noise Figure						
V_{CE}=5V, I_C=250uA Rg=1kΩ, f=10Hz to 15.7 kHz		NF	-	-	10	dB
V_{CE}=6V, I_C=100uA, f=1KHz Rg=100Ω			-	3	-	dB

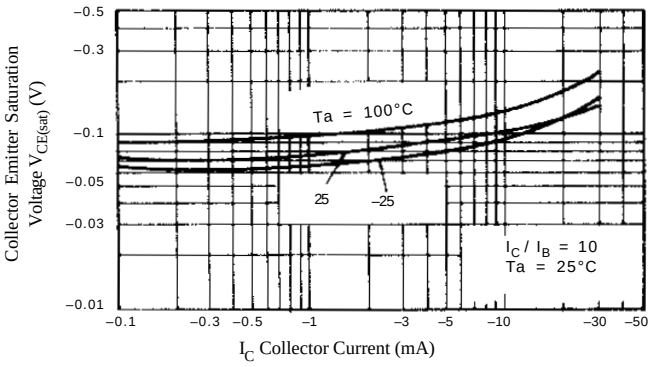
h_{FE} Classification	***GR***	***BL***
	200-400	***350-700***

CSA970

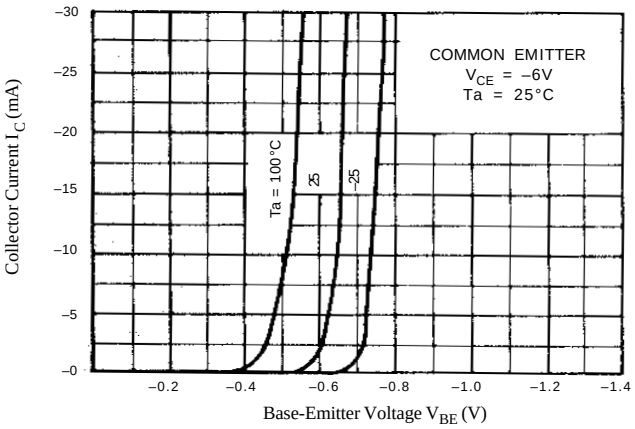
$h_{FE} - I_C$



$V_{CE(sat)} - I_C$

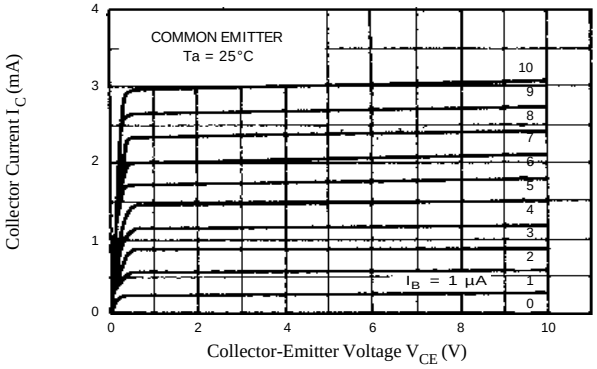


$I_C - V_{BE}$

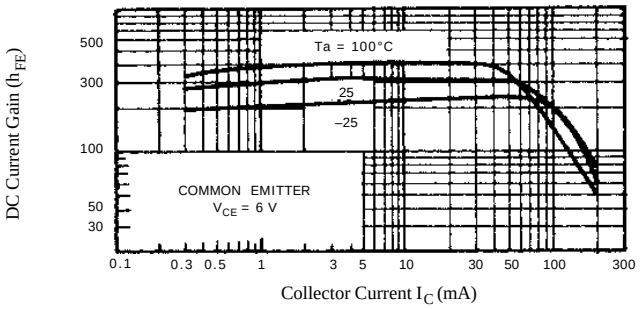


CSC2240

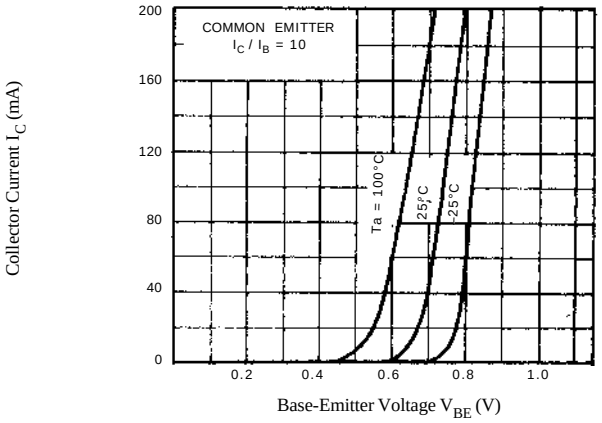
$I_C - V_{CE}$
(Low Current and Low Voltage Region)



$h_{FE} - I_C$



$I_C - V_{BE}$



Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/ CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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