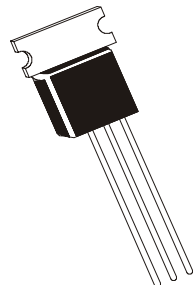


NPN/PNP COMPLEMENTARY SILICON PLANAR EPITAXIAL TRANSISTORS
**CVG639 (NPN)
CVG640 (PNP)
TO-237
EBC**

Driver Stages of Audio Amplifier Application
ABSOLUTE MAXIMUM RATINGS(Ta=25 deg C)

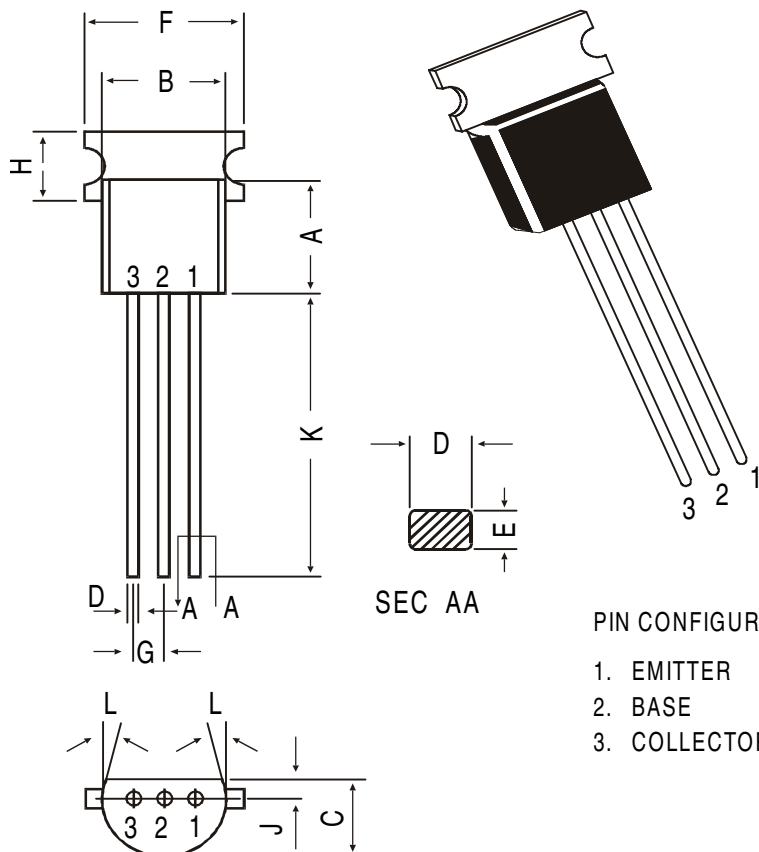
DESCRIPTION	SYMBOL	VALUE	UNITS
Collector -Base Voltage	VCBO	150	V
Collector -Emitter Voltage	VCEO	135	V
Emitter -Base Voltage	VEBO	5.0	V
Collector Current Continuous	IC	1.0	A
Peak	ICM	1.5	A
Base Current Continuous	IB	100	mA
Peak	IBM	200	mA
Power Dissipation@ Ta=25 deg C	PD	750	mW
Derate Above 25 deg C		6.0	mW/deg C
Power Dissipation@ Tc=25 deg C	PD	2.5	W
Derate Above 25 deg C		20	mW/deg C
Operating & Storage Junction Temperature Range	Tj, Tstg	-55 to +150	deg C

ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	VALUE		UNITS
			Min	Max	
Collector -Emitter Voltage	VCEO	IC=10mA, IB=0	135	-	V
Collector -Base Voltage	VCBO	IC=100uA, IE=0	150	-	V
Emitter-Base Voltage	VEBO	IE=10uA, IC=0	5.0	-	V
Collector-Cut off Current	ICBO	VCB=30V, IE=0	-	100	nA
		VCB=30V, IE=0, Ta=125 deg C	-	10	uA
Base Emitter on Voltage	VBE(on) *	IC=500mA, VCE=2V	-	1.0	V
Collector Emitter Saturation Voltage	VCE(Sat) *	IC=500mA, IB=50mA	-	0.5	V
DC Current Gain	hFE	IC=5mA, VCE=2V	25	-	
		IC=150mA, VCE=2V *	80	-	
		IC=500mA, VCE=2V *	15	-	

DESCRIPTION	SYMBOL	TEST CONDITION		Value	UNITS
<u>DYNAMIC CHARACTERISTICS</u>					
Transistors Frequency	ft	IC=10mA,VCE=5V f=35MHz	NPN	Typ 130	MHz
			PNP	Typ 50	MHz
Out-Put Capacitance	Cob	VCB=10V, f=1MHz	NPN	Typ 7.0	pF
			PNP	Typ 9.0	pF
In-Put Capacitance	Cib	VBE=0.5V, IC=0 f=1MHz	NPN	Typ 50	pF
			PNP	Typ 110	pF
*Pulse Test : Pulse Width =300us, Duty CYCLE=2%					

TO-237 Plastic Package



PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR

All dimensions in mm.

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	—	5.40
G	1.14	1.40
H	—	2.54
K	12.70	—
L	5 DEG	
J	1.14	1.53

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-237 Bulk	1K/polybag	240 gm/1K pcs	3" x 7.5" x 7.5"	5.0K	17" x 15" x 13.5"	80.0K	26.2 kgs
TO-237 T&A	2K/ammo box	725 gm/2K pcs	12.5" x 8" x 1.8"	2.0K	17" x 15" x 13.5"	32.0K	13.8 kgs

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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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290

e-mail sales@cdil.com www.cdil.com