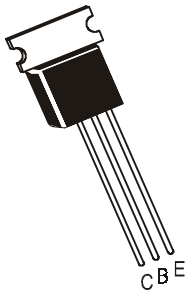


**NPN SILICON PLANAR EPITAXIAL TRANSISTORS**

**CTN368  
CTN369**

**TO-237  
Plastic Package**



**Complementary CTN 369**

**Amplifier Transistors.**

**ABSOLUTE MAXIMUM RATINGS(Ta=25° C unless specified otherwise )**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Emitter Voltage	$V_{CES}$	25	V
Collector -Emitter Voltage	$V_{CEO}$	20	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current Continuous	$I_C$	1	A
Total Power Dissipation @ $T_A=25^{\circ}C$	$P_D$	1.0	W
Derate Above =25°C		6.4	mW/°C
Total Power Dissipation @ $T_C=25^{\circ}C$	$P_D$	2.75	W
Derate Above =25°C		22	mW/°C
Operating and Storage Junction Temperature Range	$T_j, T_{stg}$	-55 to +150	°C

**THERMAL RESISTANCE**

Junction to Case	$R_{th(j-c)}$	45	°C/W
Junction to Ambient	$R_{th(j-a)}$	156	°C/W

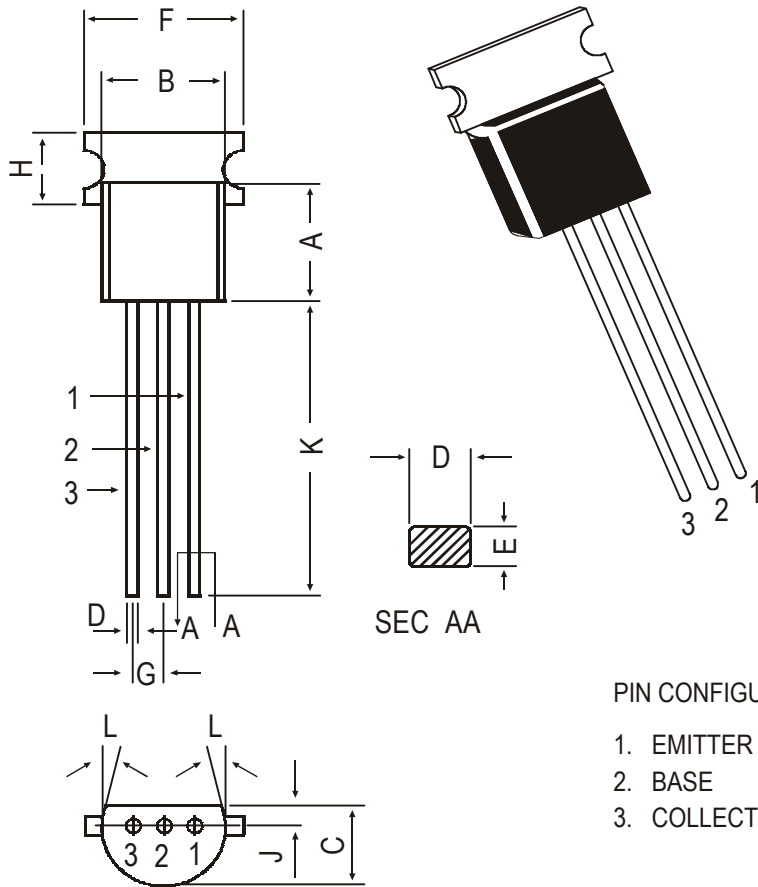
**ELECTRICAL CHARACTERISTICS (Ta=25° C unless specified otherwise )**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter Breakdown Voltage	$V_{CEO}$	$I_C=10mA, I_B=0$	20		V
Collector Base Breakdown Voltage	$V_{CBO}$	$I_C=100\mu A, I_E=0$	25		V
Emitter Base Breakdown Voltage	$V_{EBO}$	$I_E=100\mu A, I_C=0$	5		V
Collector Cut off Current	$I_{CBO}$	$V_{CB}=25V, I_E=0$ $I_E=0, V_{CB}=25V,$ $T_j=150^{\circ}C$		10 1	$\mu A$
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$		10	$\mu A$
Base Emitter on Voltage	$V_{BE(on)}$	$I_C=1A, V_{CE}=1V$		1	V
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1A, I_B=100mA$		0.5	V
DC Current Gain	$h_{FE}$	$I_C=5mA, V_{CE}=10V$ $I_C=500mA, V_{CE}=1V$ $I_C=1A, V_{CE}=1V$	50 85 60	375	
<b>DYNAMIC CHARACTERISTICS</b>					
Transition Frequency	$f_T$	$V_{CE}=5V, I_C=10mA,$ $f=20MHz$	65		MHz

**CTN368  
CTN369**

**TO-237  
Plastic Package**

**TO-237 Plastic Package**



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

**PIN CONFIGURATION**

1. EMITTER
2. BASE
3. COLLECTOR

**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"	5K	17" x 15" x 13.5"	80K	26.2 kgs
TO-237 T&A	2K/ammo box	725 gm/2K pcs	12.5" x 8" x 1.8"	2K	17" x 15" x 13.5"	32K	13.8 kgs

### **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 in the Data Sheet and on the CDIL Web Site/CD are 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).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of

**Continental Device India Limited**

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

Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119

email@cdil.com www.cdilsemi.com