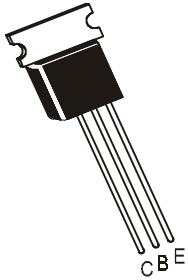


**NPN SILICON HIGH VOLTAGE VIDEO TRANSISTORS**

**CTN391, 392, 393**



**TO-237  
Plastic Package**

**Designed For High Video Amplifier In Television Receivers.**

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

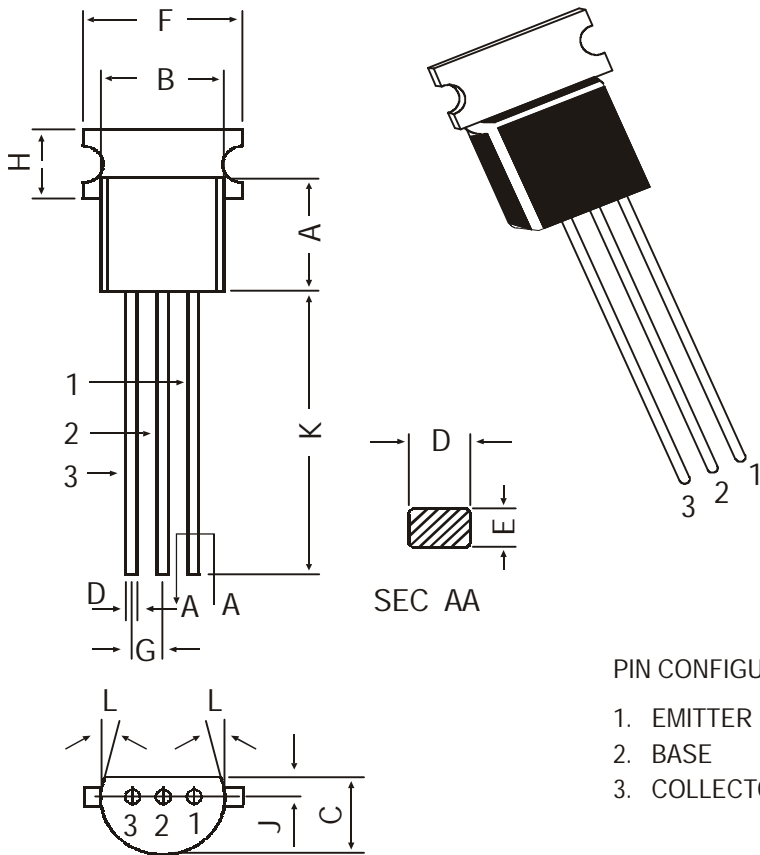
DESCRIPTION	SYMBOL	391	392	393	UNIT
Collector -Base Voltage	$V_{CBO}$	200	250	300	V
Collector -Emitter Voltage	$V_{CEO}$	200	250	300	V
Emitter Base Voltage	$V_{EBO}$	6	6	6	V
Collector Current Continuous	$I_C$	<-----500----->			mA
Power Dissipation @Ta=25°C	$P_D$	<-----625----->			mW
BF391, 392 , 393		<-----750----->			mW
CTN391, 392, 393		<-----1.5----->			W
Operating and Storage Junction Temperature Range	$T_j, T_{stg}$	-55 to +150			°C
<b>THERMAL RESISTANCE</b>					
Junction to ambient	$R_{th(j-a)}$		357		
BF391, 392, 393			200		°C/W
CTN391, 392, 393			166.7		°C/W
Junction to case	$R_{th(j-c)}$		83.3		°C/W

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

DESCRIPTION	SYMBOL	TEST CONDITION	391	392	393	UNIT
Collector Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=1.0mA, I_B=0$	>200	>250	>300	V
Collector -Base Breakdown Voltage	$BV_{CBO}$	$I_C=100\mu A, I_E=0$	>200	>250	>300	V
Emitter-Base Voltage	$BV_{EBO}$	$I_E=100\mu A, I_C=0$	>6	>6	>6	V
Collector Cut off Current	$I_{CBO}$	$V_{CB}=160V, I_E=0$	<0.1			$\mu A$
		$V_{CB}=200V, I_E=0$		<0.1		
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			0.1	$\mu A$
DC Current Gain	$h_{FE}$	$I_C=50mA, V_{CE}=2V$		40		
		$I_C=250mA, V_{CE}=2V$		40	250	
		$I_C=500mA, V_{CE}=2V$		25		
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			0.5	V
		$I_C=1A, I_B=100mA$			1	V
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=200mA,$		50	400	MHz

**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 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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