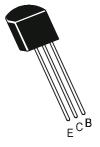
An ISO/TS16949 and ISO 9001 Certified Company



# PNP SILICON PLANAR EPITAXIAL TRANSISTOR

**CSA966** 

TO-92 Plastic Package



**Complementary CSC2236** 

**Audio Power Amplifier Applications** 

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

DESCRIPTION	SYMBOL	VALUE	UNIT	
Collector Emitter Voltage	$V_{CEO}$	30	V	
Collector Base Voltage	$V_{CBO}$	30	V	
Emitter Base Voltage	$V_{EBO}$	5	V	
Collector Current	Ic	1.5	Α	
Emitter Current	I <sub>E</sub>	1.5	Α	
<b>Collector Power Dissipation</b>	$P_{C}$	900	mW	
Operating And Storage Junction Temperature Range	$T_{j},T_{stg}$	-55 to +150	°C	

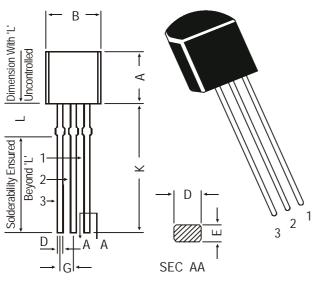
### **ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)**

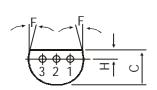
DESCRIPTION	SYMBOL	TEST CONDITION	min	typ	max	UNIT
Collector Cut off Current	$I_{CBO}$	$V_{CB} = 30V, I_{E} = 0$	-		100	nA
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=5V$ , $I_C=0$	-		100	nA
Collector Emitter Voltage	$BV_CEO$	$I_C=10$ mA, $I_B=0$	30		-	V
Emitter Base Voltage	$V_{EBO}$	$I_E=1mA, I_C=0$	5		-	V
DC Current Gain	h <sub>FE</sub> *	$V_{CE}$ =2V, $I_{C}$ =500mA	100		320	
Collector Emitter Saturation	$V_{CE(sat)}$	$I_{C}$ =1.5A, $I_{B}$ =0.03A	-		2.0	V
Voltage						
Base Emitter Voltage	$V_{BE}$	$V_{CE}$ =2V, $I_{C}$ =500mA	-		1.0	V
DYNAMIC CHARACTERISTICS						
Transition Frequency	$f_T$	$I_C$ =500mA, $V_{CE}$ =2V	-	120	-	MHz
<b>Collector Output Capacitance</b>	$C_ob$	$I_E=0,V_{CB}=10V,f=1MHz$	-		30	pF
Classification		0	Υ			
h <sub>FE</sub> *		100 - 200	160 - 320			

# **TO-92 Plastic Package**

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## **TO-92 Transistors on Tape and Ammo Pack**



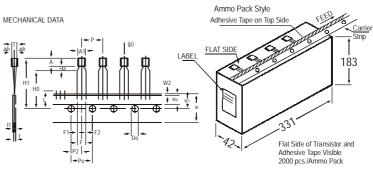


# PIN CONFIGURATION

- 1. BASE
- **COLLECTOR**
- **EMITTER**

MIN.	MAX.				
4.32	5.33				
4.45	5.20				
3.18	4.19				
0.41	0.55				
0.35	0.50				
5 DEG					
1.14	1.40				
1.14	1.53				
12.70	_				
1.982	2.082				
	4.32 4.45 3.18 0.41 0.35 5 D 1.14 1.14 12.70				

All diminsions in mm.



#### All dimensions in mm unless specified otherwise

ITFM		SPECIFICATION			REMARKS	
ITEM	SYMBOL	MIN. NOM. MAX. TOL.				
BODY WIDTH BODY HEIGHT BODY THICKNESS	A1 A T	4.0 4.8 3.9		4.8 5.2 4.2		
PITCH OF COMPONENT FEED HOLE PITCH	P Po		12.7 12.7		±1 ±0.3	CUMULATIVE PITCH FRROR 1.0 mm/20
FEED HOLE CENTRE TO COMPONENT CENTRE	P2		6.35		±0.4	PITCH TO BE MEASURED AT BOTTOM OF CLINCH
DISTANCE BETWEEN OUTER LEADS COMPONENT ALIGNMENT TAPE WIDTH HOLD-DOWN TAPE WIDTH HOLE POSITION	F △h W Wo W1		5.08 0 18 6 9	1	+0.6 -0.2 ±0.5 ±0.2 +0.7 -0.5	AT TOP OF BODY
HOLD-DOWN TAPE POSITION LEAD WIRE CLINCH HEIGHT COMPONENT HEIGHT LENGTH OF SNIPPED LEADS FEED HOLE DIAMETER TOTAL TAPE THICKNESS LEAD - TO - LEAD DISTANCEF1,	W2 Ho H1 L Do t		0.5 16 4 2.54	23.25 11.0 1.2	±0.2 ±0.5 ±0.2 +0.4 -0.1	t1 0.3 - 0.6
CLINCH HEIGHT PULL - OUT FORCE	H2 (P)	6N		3	3.1	

- NOTES

  1. MAXIMUM ALIGNMENT DEVIATION BETWEEN LEADS NOT TO BE GREATER THAN 0.2 mm.

  2. MAXIMUM NON-CUMULATIVE VARIATION BETWEEN TAPE FEED HOLES SHALL NOT EXCEED 1 mm IN 20 PITCHES.

  3. HOLDDOWN TAPE NOT TO EXCEED BEYOND THE EDGE(S) OF CARRIER TAPE AND THERE SHALL BE NO

- 5. HOLDOWN HAPE NOT TO EACEED BETOND THE EDGE(S) OF CARRIER HAPE AND THERE SHALL BE NOT EXPOSURE OF ADHESIVE.

  4. NO MORE THAN 3 CONSECUTIVE MISSING COMPONENTS ARE PERMITTED.

  5. A TAPE TRAILER, HAVING AT LEAST THREE FEED HOLES ARE REQUIRED AFTER THE LAST COMPONENT.

  6. SPLICES SHALL NOT INTERFERE WITH THE SPROCKET FEED HOLES.

# Packing Detail

- dokung Dokun										
PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX					
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt			
TO-92 Bulk	1K/polybag	200 gm/1K pcs	3" x 7.5" x 7.5"	5K	17" x 15" x 13.5"	80K	23 kgs			
TO-92 T&A	2K/ammo box	645 gm/2K pcs	12.5" x 8" x 1.8"	2K	17" x 15" x 13.5"	32K	12.5 kgs			

Notes CSA966

查询"CSA966"供应商

TO-92 Plastic Package

## **Disclaimer**

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