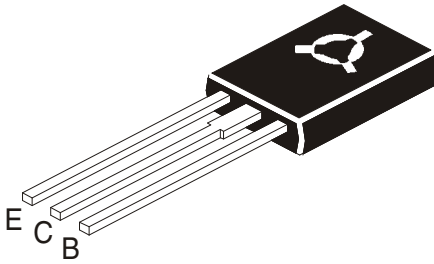


PNP EPITAXIAL SILICON POWER TRANSISTOR

CSA1357

TO-126
Plastic Package



Strobe Flash and Audio Power Amplifier Applications

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

DESCRIPTION	SYMBOL	Value	UNIT
Collector Base Voltage	V_{CBO}	35	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	8.0	V
Collector Current (DC)	I_C	5.0	A
Collector Current (Pulse)	$*I_{CP}$	8.0	A
Base Current	I_B	1.0	A
Collector Power Dissipation $T_a=25^\circ\text{C}$	P_C	1.5	W
Collector Power Dissipation $T_c=25^\circ\text{C}$	P_C	10	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to +150	$^\circ\text{C}$

*Pulse Test : Pulse Width=10ms, Duty Cycle=30%

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	I_{CBO}	$V_{CB}=35\text{V}, I_E=0$			100	μA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=8\text{V}, I_C=0$			100	μA
Collector Emitter Voltage	V_{CEO}	$I_C=10\text{mA}, I_B=0$	20			V
DC Current Gain	h_{FE}	$*V_{CE}=2\text{V}, I_C=0.5\text{A}$	100		320	
		$V_{CE}=2\text{V}, I_C=4\text{A}$	70			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4\text{A}, I_B=0.1\text{A}$			1.0	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=2\text{V}, I_C=4\text{A}$			1.5	V
Transition Frequency	f_T	$V_{CE}=2\text{V}, I_C=0.5\text{A}$		170		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		62		pF

* h_{FE} Classification **O : 100 - 200 , Y : 160 - 320,**

CSA1357Rev150606E

Technical drawing of a mechanical assembly, showing a top view (left) and a side view (right). The drawing includes various dimensions labeled with letters and numbers.

Top View (Left):

- A:** Overall width of the top rectangular section.
- B:** Overall height of the top rectangular section.
- N:** Height of the central circular feature.
- P:** Height of the central circular feature.
- S:** Height of the central circular feature.
- L:** Length of the three vertical rectangular sections below the top section.
- D:** Width of the central vertical section.
- E:** Width of the central vertical section.
- G:** Width of the central vertical section.
- 1, 2, 3:** Labels for the three vertical sections, with arrows pointing to them.

Side View (Right):

- C:** Overall width of the top rectangular section.
- F:** Width of the central vertical section.
- M:** Width of the central vertical section.

DIM	MIN	MAX
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.7	0.9
E	2.25 TYP.	
F	0.49	0.75
G	4.5 TYP.	
L	15.7 TYP.	
M	1.27 TYP.	
N	3.75 TYP.	
P	3.0	3.2
S	2.5 TYP.	

1. Emitter
2. Collector
3. Base

Technical drawing of a PVC pipe with a printed label. The drawing includes a front view, a cross-section labeled "SECTION AA", and a detailed view of the "PRINTING AREA".

Front View Dimensions:

- Overall diameter: 532.00
- Wall thickness: 7.00
- Distance from left edge to first hole: 10.0
- Hole diameter: ± 0.10 $\phi 5.90$ THRU (2 NOS)
- Distance between holes: 390.00
- Distance from second hole to right edge: 71.00
- Overall length: 532.00
- Break line in the middle of the pipe.

Cross-section (SECTION AA) Dimensions:

- Wall thickness: 3.70
- Inner diameter: 530.00
- Outer diameter: 536.00
- Distance from outer edge to inner hole: 1.00
- Inner hole diameter: 3.10
- Distance from inner hole to outer edge: 1.20
- Distance from outer edge to outer hole: 1.30
- Outer hole diameter: 5.90
- Distance from outer hole to outer edge: 0.65
- Fillet radius: R 0.50

Printing Area Dimensions:

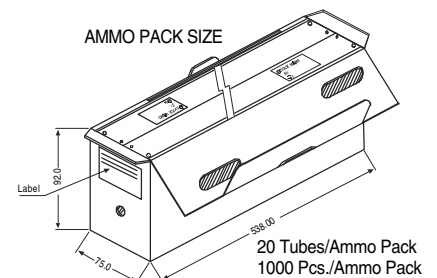
- Overall width: 6.5
- Distance from left edge to first hole: 11.0
- Hole diameter: ± 0.1 $\phi 3.0$
- Distance between holes: 6.0
- Distance from second hole to right edge: 9.0
- Overall length: 6.5
- Break line in the middle of the printing area.

General Tolerance Table:

GENERAL TOLERANCE				
0 mm	0.01 mm	30.01 mm	120.01 mm	ABOVE 120.01 mm
5 mm	30 mm	120 mm	315 mm	315 mm
± 0.1	± 0.2	± 0.3	± 0.5	± 0.8
ANGULAR				
$\pm 0^\circ 30'$				

Notes:

- All print in black.



Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-126 Bulk	500 pcs/polybag	340 gm/500 pcs	3" x 7.5" x 7.5"	2K	17" x 15" x 13.5"	32K	31 kgs
TO-126 Tube	50 pcs/tube	73 gm/50 pcs	3" x 3.7" x 21.5"	1K	19" x 19" x 19"	10K	15 kas

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's 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 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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