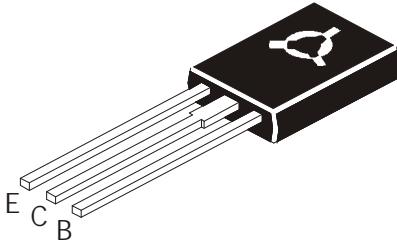


**PNP EPITAXIAL SILICON POWER TRANSISTOR**

**CSA1156**

**TO-126  
Plastic Package**



**High Voltage Switching and Low Power Switching Regulator**

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	Value	UNIT
Collector Base Voltage	$V_{CBO}$	350	V
Collector Emitter Voltage	$V_{CEO}$	350	V
Emitter Base Voltage	$V_{EBO}$	7.0	V
Base Current	$I_B$	0.25	A
Collector Current (DC)	$I_C$	0.5	A
Collector Current (Pulse)	$I_{CP}$	1.0	A
Collector Dissipation $T_a=25^\circ\text{C}$	$P_C$	1.0	W
Collector 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	$^\circ\text{C}$

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter Voltage	$V_{CEO}$	$I_C=1\text{mA}, I_B=0$	350		V
Collector Emitter Voltage	$V_{CEX}$	$I_C=1\text{mA}, I_{B1} = - I_{B2} = -20\text{mA}, V_{BE(off)} = 5\text{V}, L=10\text{mH}$	350		V
Collector Cut Off Current	$I_{CBO}$	$V_{CB}=350\text{V}, I_E=0$		100	$\mu\text{A}$
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$		10	$\mu\text{A}$
Collector Cut Off Current	$I_{CEX1}$	$V_{CE}=350\text{V}, V_{BE(off)}=1.5\text{V}$		100	$\mu\text{A}$
Collector Cut Off Current	$I_{CEX2}$	$V_{CE}=350\text{V}, V_{BE(off)}=1.5\text{V}, T_C=125^\circ\text{C}$		1.0	mA
*DC Current Gain	$h_{FE}$	$I_C=100\text{mA}, V_{CE}=5\text{V}$	30	200	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		1.0	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		1.2	V

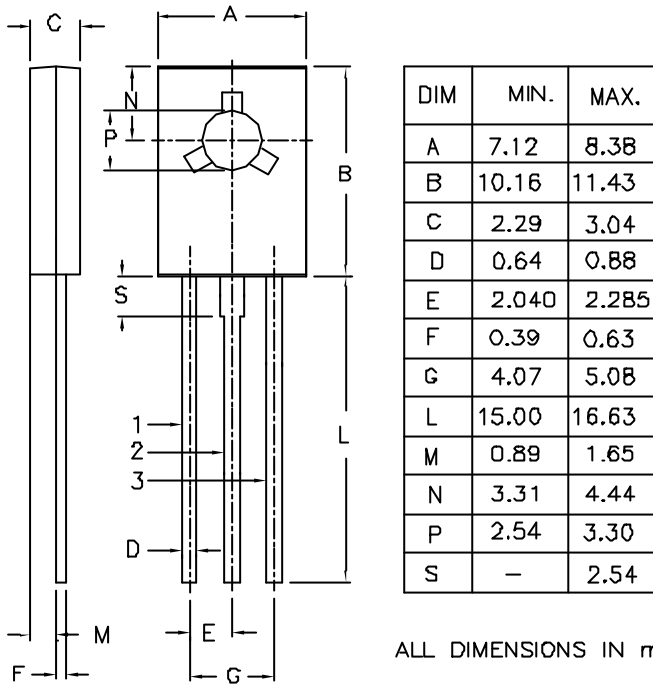
**SWITCHING TIME**

Turn On Time	$t_{on}$	$V_{CC}=150\text{V}, I_C=100\text{mA}, I_{B1} = - 10\text{mA}, I_{B2}=20\text{mA}, R_L=1.5\text{K}\Omega$	1.0	$\mu\text{s}$
Storage Time	$t_{stg}$		4.0	$\mu\text{s}$
Fall Time	$t_f$		1.0	$\mu\text{s}$

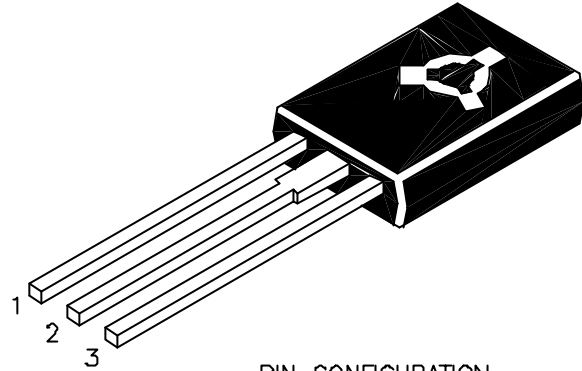
<b><math>h_{FE}</math> Classification</b>	<b>N : 30 - 60</b>	<b>R : 40 - 80</b>	<b>O : 60 - 120</b>	<b>Y : 100 - 200</b>
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CSA1156Rev220907E

### TO-126 (SOT-32) Plastic Package



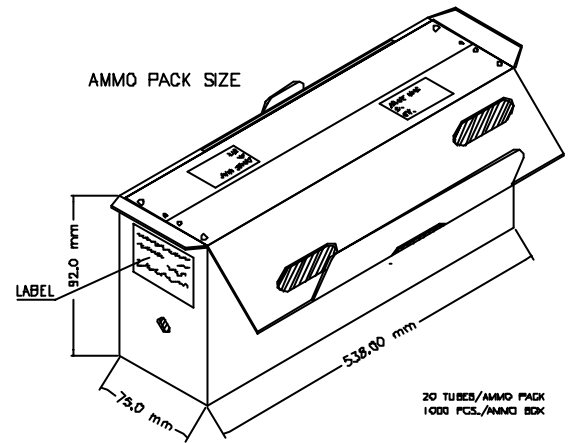
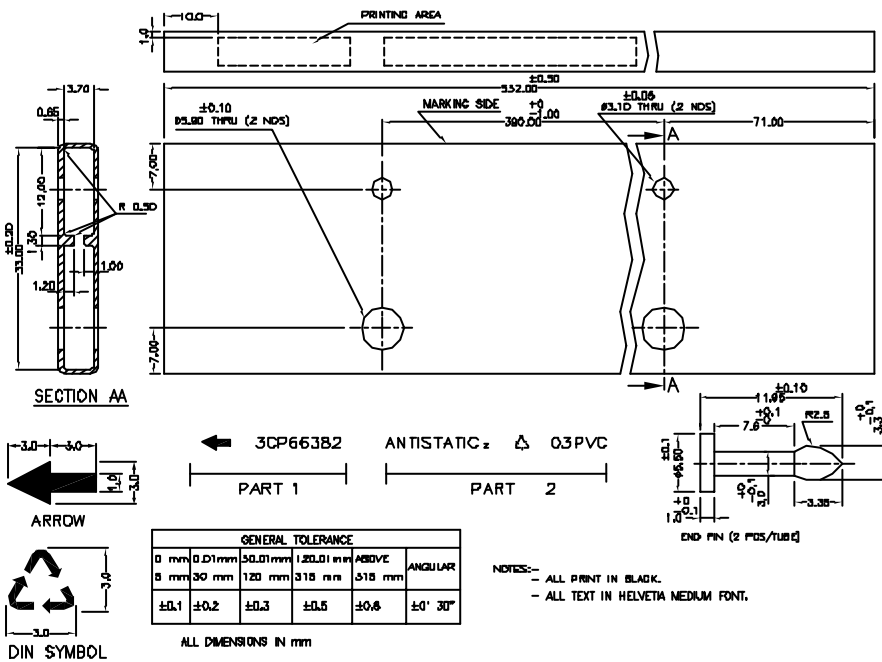
ALL DIMENSIONS IN mm



PIN CONFIGURATION

- 1. EMITTER
- 2. COLLECTOR
- 3. BASE

### TO-126 TUBE PACKING



### 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 kgs

**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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