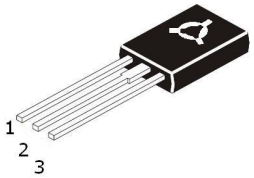
PNP EPITAXIAL SILICON TRANSISTOR

CSA1381
TO-126
Plastic Package



PIN CONFIGURATION
1. EMITTER
2. COLLECTOR
3. BASE

Complement to CSC3503

Applications
- Audio, Voltage Amplifier and Current Source
- CRT Display, Video Output
- General Purpose Amplifier

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

PARAMETER	SYMBOL	VALUE	UNITS
Collector - Base Voltage	BV_{CBO}	-300	V
Collector - Emitter Voltage	BV_{CEO}	-300	V
Emitter - Base Voltage	BV_{EBO}	-5	V
Collector Current (DC)	I_C	-100	mA
Collector Current (Pulse)	I_{CP}	-200	mA
Total Device Dissipation, T_C=25°C	P_C	7	W
T_C=125°C		1.2	W
Junction and Storage Temperature	T_J, T_{STG}	-55 ~ 150	°C

THERMAL CHARACTERISTICS* (T_a=25°C unless otherwise specified)

PARAMETER	SYMBOL	MAX.	UNITS
Thermal Resistance, Junction to Case	$R_{\theta JC}$	17.8	°C/W

* Device mounted on minimum pad size

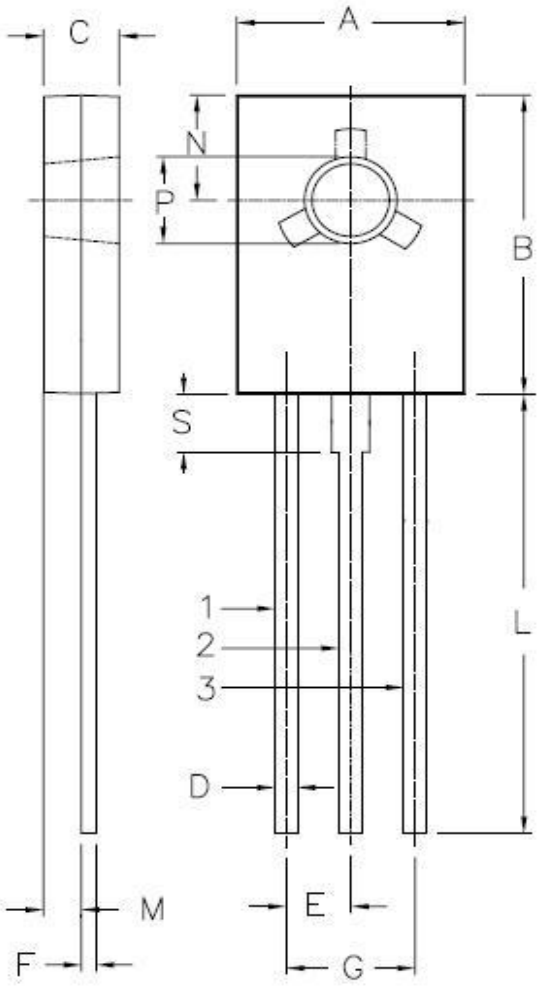
ELECTRICAL CHARACTERISTICS* (T_a=25°C unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=-10μA, I_E=0	-300			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=-1mA, I_B=0	-300			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=-10μA, I_C=0	-5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=-200V, I_E=0			-0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-4V, I_C=0			-0.1	μA
DC Current Gain	h_{FE}**	V_{CE}=-10V, I_C=-10mA	40		320	
Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C=-20mA, I_B=-2mA			-0.6	V
Base-Emitter Saturation Voltage	V_{BE}(sat)	I_C=-20mA, I_B=-2mA			1	V
Current Gain Bandwidth Product	f_T	V_{CE}=-30V, I_C=-10mA		150		MHz
Output Capacitance	C_{ob}	V_{CB}=-30V, f=1MHz		3.1		pF
Reverse Transfer Capacitance	C_{re}	V_{CB}=-30V, f=1MHz		2.3		pF

****hFE CLASSIFICATION**

CLASSIFICATION	C	D	E	F
h_{FE}	40~80	60~120	100~200	160~320

Package Outline and Dimension TO-126



DIM	MIN.	MAX.
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.64	0.88
E	2.25 TYP.	
F	0.39	0.63
G	4.5 TYP.	
L	15.7 TYP.	
M	1.27 TYP.	
N	3.75 TYP.	
P	2.9	3.2
S	2.5 TYP.	

Customer Notes

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 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 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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