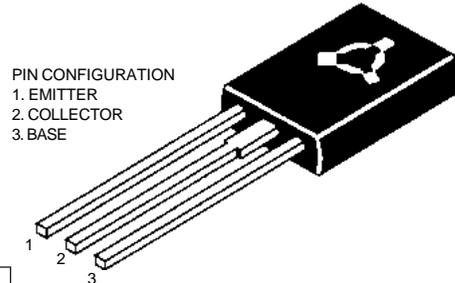


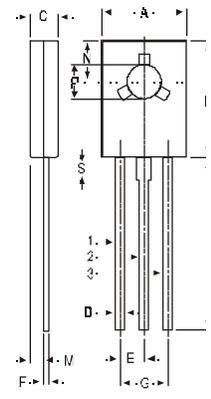
TO-126 (SOT-32) Plastic Package

CSC2690, CSC2690A

CSC2690, 2690A NPN PLASTIC POWER TRANSISTORS
 Complementary CSA1220, 1220A
 Audio frequency, High Frequency and Power Amplifier



PIN CONFIGURATION
 1. EMITTER
 2. COLLECTOR
 3. BASE



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.	

ALL DIMENSIONS IN MM

ABSOLUTE MAXIMUM RATINGS

		2690	2690A
Collector-base voltage (open emitter)	V_{CBO}	max. 120	160 V
Collector-emitter voltage (open base)	V_{CEO}	max. 120	160 V
Collector current (DC)	I_C	max.	1.2 A
Total power dissipation up to $T_C = 25^\circ C$	P_{tot}	max.	20 W
Junction temperature	T_j	max.	150 $^\circ C$
Collector-emitter saturation voltage $I_C = 1A; I_B = 0.2 A$	V_{CEsat}	max.	0.7 V
D.C. current gain $I_C = 0.3 A; V_{CE} = 5 V$	h_{FE}	min.	60
		max.	320

RATINGS (at $T_A=25^\circ C$ unless otherwise specified)

Limiting values

		2690	2690A
Collector-base voltage (open emitter)	V_{CBO}	max. 120	160 V
Collector-emitter voltage (open base)	V_{CEO}	max. 120	160 V

CSC2690, CSC2690A

Emitter-base voltage (open collector)	V_{EBO}	max.	5.0	V
Collector current (DC)	I_C	max.	1.2	A
Collector current (Pulse) (1)	I_C	max.	2.5	A
Base current (DC)	I_B	max.	0.3	A
Total power dissipation up to $T_A = 25^\circ\text{C}$	P_{tot}	max.	1.2	W
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.	20	W
Junction temperature	T_j	max.	150	$^\circ\text{C}$
Storage temperature	T_{stg}		-65 to +150	$^\circ\text{C}$

CHARACTERISTICS

$T_{amb} = 25^\circ\text{C}$ unless otherwise specified

			2690	2690A
Collector cutoff current $I_E = 0; V_{CB} = 120\text{V}$	I_{CBO}	max.	1.0	μA
Emitter cut-off current $I_C = 0; V_{EB} = 3\text{V}$	I_{EBO}	max.	1.0	μA
Breakdown voltages $I_C = 1\text{ mA}; I_B = 0$	V_{CEO}	min.	120	160 V
$I_C = 1\text{ mA}; I_E = 0$	V_{CBO}	min.	120	160 V
$I_E = 1\text{ mA}; I_C = 0$	V_{EBO}	min.	5.0	V
Saturation voltages $I_C = 1\text{ A}; I_B = 0.2\text{ A}$	V_{CEsat}^*	max.	0.7	V
	V_{BEsat}^*	max.	1.3	V
D.C. current gain $I_C = 5\text{ mA}; V_{CE} = 5\text{ V}$	h_{FE}^*	min.	35	
$I_C = 0.3\text{ A}; V_{CE} = 5\text{ V}^{**}$	h_{FE}^*	min.	60	
		max.	320	
Output capacitance at $f = 1\text{MHz}$ $I_E = 0, V_{CB} = 10\text{V}$	C_o	typ.	19	pF
Transition frequency $I_C = 0.2\text{ A}; V_{CE} = 5\text{ V}$	f_T	typ.	155	MHz

* Pulse test: pulse width $\leq 350\ \mu\text{s}$; duty cycle $\leq 2\%$. Pulsed.

(1) $P_W \leq 10\text{ ms}$, duty cycle $\leq 50\%$.

** h_{FE} classification: R: 60-120 O: 100-200 Y: 160-320

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 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).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290
e-mail sales@cdil.com www.cdil.com