

TO-126 (SOT-32) Plastic Package

**CSB649, CSB649A
 CSD669, CSD669A**

CSB649, 649A PNP PLASTIC POWER TRANSISTORS
 CSD669, 669A NPN PLASTIC POWER TRANSISTORS
 Low frequency Power Amplifier

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

PIN CONFIGURATION
 1. EMITTER
 2. COLLECTOR
 3. BASE

ABSOLUTE MAXIMUM RATINGS

		649	649A
		669	669A
Collector-base voltage (open emitter)	V_{CB0}	max. 180	180 V
Collector-emitter voltage (open base)	V_{CE0}	max. 120	160 V
Collector current	I_C	max.	1.5 A
Total power dissipation up to $T_C = 25^\circ C$	P_C	max.	20 W
Junction temperature	T_j	max.	150 C
Collector-emitter saturation voltage $I_C = 0.5 A; I_B = 50 mA$	V_{CEsat}	max.	1.0 V
D.C. current gain $I_C = 150 mA; V_{CE} = 5 V$	h_{FE}	min.	60
		max.	320
			200

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

Limiting values			
Collector-base voltage (open emitter)	V_{CB0}	max.	180
Collector-emitter voltage (open base)	V_{CE0}	max.	120
			160 V

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).

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