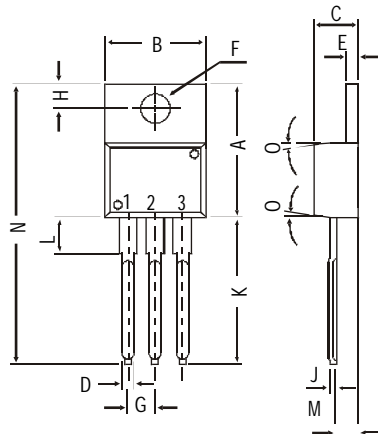
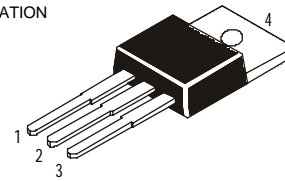


TO-220 Plastic Package

CSC1398, CSC1398A

CSC1398, CSC1398A NPN PLASTIC POWER TRANSISTORS
 Complementary CSA748
 Medium Power Amplifier

PIN CONFIGURATION
 1. BASE
 2. COLLECTOR
 3. EMITTER
 4. COLLECTOR



DIM	MIN.	MAX.
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D		0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J		0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N		31.24
O		DEG 7

All dimensions in mm.

ABSOLUTE MAXIMUM RATINGS

		1398	1398A	
Collector-base voltage (open emitter)	V_{CBO}	max.	70	V
Collector-emitter voltage (open base)	V_{CEO}	max. 50	70	V
Collector current	I_C	max.	2	A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.	15	W
Junction temperature	T_j	max.	150	$^\circ\text{C}$
Collector-emitter saturation voltage	V_{CEsat}	max.	1.0	V
$I_C = 2\text{ A}; I_B = 200\text{ mA}$				
D.C. current gain	h_{FE}	min. 50	50	
$I_C = 1\text{ A}; V_{CE} = 5\text{ V}$				
		max. 220	160	

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

		1398	1398A	
Limiting values				
Collector-base voltage (open emitter)	V_{CBO}	max.	70	V
Collector-emitter voltage (open base)	V_{CEO}	max. 50	70	V
Emitter-base voltage (open collector)	V_{EBO}	max.	5.0	V

CSC1398, CSC1398A

Collector current	I_C	max.	2	A
Collector current (Peak value)	I_{CP}	max.	3	A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.	15	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

			1398	1398A
Collector cutoff current				
$I_E = 0; V_{CB} = 40\text{ V}$	I_{CBO}	max.	1	μA
$I_B = 0; V_{CE} = 20\text{ V}$	I_{CEO}	max.	100	μA
Emitter cut-off current				
$I_C = 0; V_{EB} = 5\text{ V}$	I_{EBO}	max.	100	μA
Breakdown voltages				
$I_C = 10\text{ mA}; I_B = 0$	V_{CEO}	min.	50	70 V
$I_C = 1\text{ mA}; I_E = 0$	V_{CBO}	min.	70	V
$I_E = 1\text{ mA}; I_C = 0$	V_{EBO}	min.	5.0	V
Saturation voltages				
$I_C = 2\text{ A}; I_B = 200\text{ mA}$	V_{CEsat}	max.	1.0	V
$I_C = 2\text{ A}; I_B = 200\text{ mA}$	V_{BEsat}	max.	1.5	V
D.C. current gain				
$I_C = 100\text{ mA}; V_{CE} = 5\text{ V}$	h_{FE}	min.	30	
$I_C = 1\text{ A}; V_{CE} = 5\text{ V}^{**}$	h_{FE}	min.	50	50
		max.	220	160

**** h_{FE} classification:**

1398	1398A
P: 50-100	P: 50-100
Q: 80-160	Q: 80-160
R: 120-220	—

Customer Notes

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 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 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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