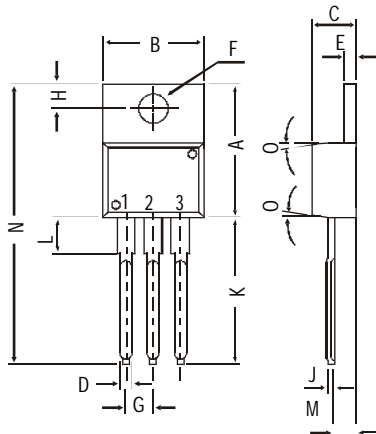
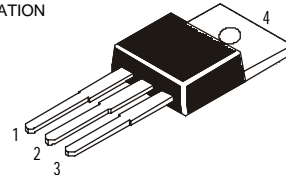


**TO-220 Plastic Package**

**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**

		<b>1398</b>	<b>1398A</b>	
Collector-base voltage (open emitter)	$V_{CB0}$	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 $T_C = 25^\circ C$	$P_{tot}$	max.	15	W
Junction temperature	$T_j$	max.	150	$^\circ C$
Collector-emitter saturation voltage	$V_{CEsat}$	max.	1.0	V
$I_C = 2 A; I_B = 200 mA$				
D.C. current gain	$h_{FE}$	min. 50	50	
$I_C = 1 A; V_{CE} = 5 V$				
		max. 220	160	

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

		<b>1398</b>	<b>1398A</b>	
<b>Limiting values</b>				
Collector-base voltage (open emitter)	$V_{CB0}$	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

			<b>1398</b>	<b>1398A</b>
Collector cutoff current				
$I_E = 0; V_{CB} = 40\text{ V}$	$I_{CBO}$	max.	1	$\mu\text{A}$
$I_B = 0; V_{CE} = 20\text{ V}$	$I_{CEO}$	max.	100	$\mu\text{A}$
Emitter cut-off current				
$I_C = 0; V_{EB} = 5\text{ V}$	$I_{EBO}$	max.	100	$\mu\text{A}$
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:**

<b>1398</b>	<b>1398A</b>
<b>P: 50-100</b>	<b>P: 50-100</b>
<b>Q: 80-160</b>	<b>Q: 80-160</b>
<b>R: 120-220</b>	—

## Customer Notes

### Disclaimer

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