Continental Device India Limited

An ISO/TS16949 and ISO 9001 Certified Company

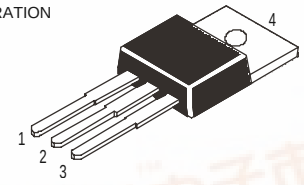
TO-220 Plastic Package **CSA968, CSA968A, CSA968B**

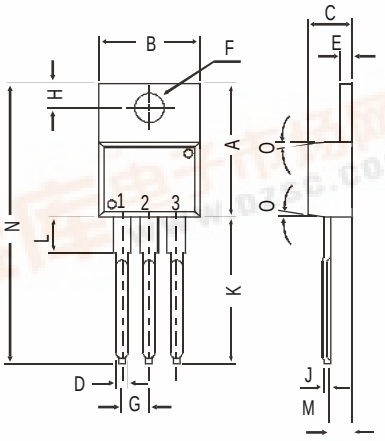
CSA968, 968A, 968B PNP PLASTIC POWER TRANSISTORS

Complementary CSC2238, 2238A, 2238B

Power Amplifier Applications and Driver Stage Amplifier Applications

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





All dimensions in mm.

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	

ABSOLUTE MAXIMUM RATINGS

			968	968A	968B	
Collector-base voltage (open emitter)	V_{CBO}	*max.*	160	180	200	*V*
Collector-emitter voltage (open base)	V_{CEO}	*max.*	160	180	200	*V*
Collector current	I_C	*max.*		1.5		*A*
Total power dissipation up to T_C = 25°C	P_{tot}	*max.*		25		*W*
Junction temperature	T_j	*max.*		150		*°C*
Collector-emitter saturation voltage						
I_C = 500 mA; I_B = 50 mA	V_{CEsat}	*max.*		1.5		*V*
D.C. current gain						
I_C = 100 mA; V_{CE} = 5 V	h_{FE}	*min*		70		
		max.		240		

RATINGS (at T_A=25°C unless otherwise specified)

Limiting values			968	968A	968B	
Collector-base voltage (open emitter)	V_{CBO}	*max.*	160	180	200	*V*
Collector-emitter voltage (open base)	V_{CEO}	*max.*	160	180	200	*V*
Emitter-base voltage (open collector)	V_{EBO}	*max.*		5.0		*V*

Collector current	I_C	*max.*	*1.5*	*A*
Emitter current	I_E	*max.*	*1.5*	*A*
Total power dissipation up to T_C = 25°C	P_{tot}	*max.*	*25*	*W*
Junction temperature	T_j	*max.*	*150*	*°C*
Storage temperature	T_{stg}		*–65 to +150*	*°C*

CHARACTERISTICS

T_{amb} = 25°C unless otherwise specified

			968	***968A***	***968B***	
Collector cutoff current						
I_E = 0; V_{CB} = 160 V	I_{CBO}	*max.*		*1.0*		*µA*
Emitter cut-off current						
I_C = 0; V_{EB} = 5 V	I_{EBO}	*max.*		*1.0*		*µA*
Breakdown voltages						
I_C = 10 mA; I_B = 0	V_{CEO}	*min.*	*160*	*180*	*200*	*V*
I_C = 1 mA; I_E = 0	V_{CBO}	*min.*	*160*	*180*	*200*	*V*
I_E = 1 mA; I_C = 0	V_{EBO}	*min.*		*5.0*		*V*
Saturation voltage						
I_C = 500 mA; I_B = 50 mA	V_{CEsat}	*max.*		*1.5*		*V*
Base emitter on voltage						
I_C = 500 mA; V_{CE} = 5 V	$V_{BE(on)}$	*max.*		*1.0*		*V*
D.C. current gain						
*I_C = 100 mA; V_{CE} = 5 V***	h_{FE}	*min.*		*70*		
		max.		*240*		
Output capacitance at f = 1 MHz						
I_E = 0; V_{CB} = 10 V	C_o	*typ.*		*30*		*pF*
Transition frequency						
I_C = 100 mA; V_{CE} = 10 V	f_T	*typ.*		*100*		*MHz*

***** h_{FE} classification: O: 70-140 Y: 120-240***

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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