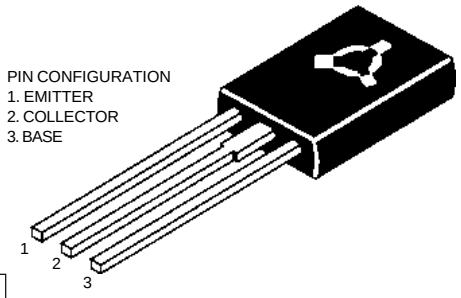
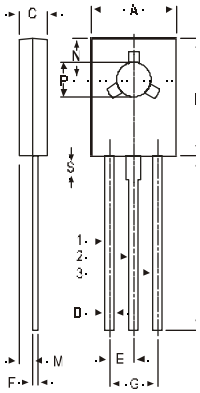
TO-126 (SOT-32) Plastic Package

CSB631, CSB631K
CSD600, CSD600K

CSB631, 631K *PNP PLASTIC POWER TRANSISTORS*
CSD600, 600K *NPN PLASTIC POWER TRANSISTORS*

Low frequency Power Amplifier and Medium Speed Switching Applications





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

			631 600	***631K 600K***	
Collector-base voltage (open emitter)	V_{CBO}	*max.*	*100*	*120*	*V*
Collector-emitter voltage (open base)	V_{CEO}	*max.*	*100*	*120*	*V*
Collector current	I_C	*max.*	*1.0*		*A*
Total power dissipation up to T_C = 25°C	P_C	*max.*	*8.0*		*W*
Junction temperature	T_j	*max.*	*150*		*°C*
Collector-emitter saturation voltage					
I_C = 0.5 A; I_B = 50 mA	V_{CEsat}	*max.*	*0.4*		*V*
D.C. current gain					
I_C = 50 mA; V_{CE} = 5 V	h_{FE}	*min.*	*60*		
		max.	*320*		

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

Limiting values					
Collector-base voltage (open emitter)	V_{CBO}	*max.*	*100*	*120*	*V*
Collector-emitter voltage (open base)	V_{CEO}	*max.*	*100*	*120*	*V*

				631 / 600	631K / 600K
Emitter-base voltage (open collector)		V_{EBO}	max.	5.0	V
Collector current		I_C	max.	1.0	A
Collector current (peak)		I_{CP}	max.	2.0	mA
Total power dissipation up to T_A = 25°C		P_C	max.	1.0	W
Total power dissipation up to T_C = 25°C		P_C	max.	8.0	W
Junction temperature		T_j	max.	150	°C
Storage temperature		T_{stg}		–65 to +150	°C

CHARACTERISTICS

T_{amb} = 25°C unless otherwise specified

				631 / 600	631K / 600K
Collector cutoff current					
I_E = 0; V_{CB} = 50 V		I_{CBO}	max.	1.0	µA
Emitter cut-off current					
I_C = 0; V_{EB} = 4 V		I_{EBO}	max.	1.0	µA
Breakdown voltages					
I_C = 1 mA; I_B = 0		V_{CEO}	min.	100 / 120	V
I_C = 10 µA; I_E = 0		V_{CBO}	min.	100 / 120	V
I_E = 10 µA; I_C = 0		V_{EBO}	min.	5.0	V
Saturation voltages					
I_C = 500 mA; I_B = 50 mA		V_{CEsat}	max.	0.4	V
		V_{BEsat}	max.	1.2	V
D.C. current gain					
I_C = 50 mA; V_{CE} = 5 V		h_{FE}*	min.	60	
			max.	320	
I_C = 500 mA; V_{CE} = 5 V		h_{FE}	min.	20	
Transition frequency					
I_C = 50 mA; V_{CE} = 10 V	***PNP***	f_T	typ.	110	MHz
	NPN		typ.	130	MHz
Output capacitance					
V_{CB} = 10 V; I_E = 0; f = 1 MHz	***PNP***	C_{ob}	typ.	30	pF
	NPN	C_{ob}	typ.	20	pF

**** h_{FE} classification: D60 - 120, E = 100 - 200, F 160 - 320***

Notes

Disclaimer

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