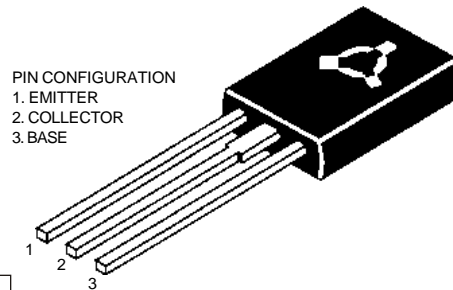


TO-126 (SOT-32) Plastic Package

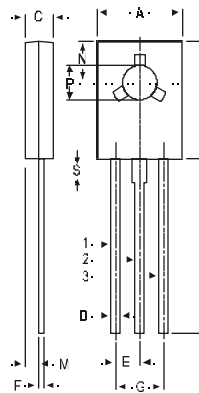
**CSB631, CSB631K
CSD600, CSD600K**

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CSB631, 631K PNP PLASTIC POWER TRANSISTORS
CSD600, 600K NPN PLASTIC POWER TRANSISTORS
 Low frequency Power Amplifier and Medium Speed Switching Applications



PIN CONFIGURATION
 1. EMITTER
 2. COLLECTOR
 3. BASE



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 $T_C = 25^\circ\text{C}$	P_C	max. 8.0	W
Junction temperature	T_j	max. 150	$^\circ\text{C}$
Collector-emitter saturation voltage $I_C = 0.5\text{ A}; I_B = 50\text{ mA}$	V_{CEsat}	max. 0.4	V
D.C. current gain $I_C = 50\text{ mA}; V_{CE} = 5\text{ V}$	h_{FE}	min. 60 max. 320	

RATINGS (at $T_A=25^\circ\text{C}$ 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

**CSB631, CSB631K
CSD600, CSD600K**

		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 $T_A = 25^\circ\text{C}$	P_C	max.	1.0	W
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_C	max.	8.0	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

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

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

Disclaimer

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