

PNP SILICON PLANAR TRANSISTOR

**CP100
CN100**



**TO-237
Plastic Package**

CN100 And CP100 Are Medium Power Transistors Suitable For a Wide Range of Medium Voltage and Current Applications.

Complementary CN100

ABSOLUTE MAXIMUM RATINGS(Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Base Voltage	V_{CBO}	60	V
Collector -Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current Continuous	I_C	1	A
Power Dissipation @Ta=25°C	P_{TA}	800	mW
Derate Above 25°C		6	mW/°C
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	VALUE		UNIT
			MIN	MAX	
Collector Emitter Breakdown Voltage	V_{CEO}^*	$I_C=10mA, I_B=0$	50		V
Collector -Base Breakdown Voltage	V_{CBO}	$I_C=100\mu A, I_E=0$	60		V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E=100\mu A, I_C=0$	7		V
Collector Leakage Current	I_{CBO}	$V_{CB}=40V, I_E=0$		50	nA
Emitter Leakage Current	I_{EBO}	$V_{EB}=5V, I_C=0$		25	nA
DC Current Gain	h_{FE}^*	$I_C=150mA, V_{CE}=1V$	50	280	
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C=150mA, I_B=15mA$		0.6	V
Base Emitter On Voltage	$V_{BE(on)}$	$I_C=150mA, V_{CE}=1V$		0.9	V

DESCRIPTION	SYMBOL	TEST CONDITION	VALUE		
			MIN	TYP	MAX

DYNAMIC CHARACTERISTICS

Transition Frequency	f_T	$V_{CE}=10V, I_C=50mA, f=20MHz$	80		
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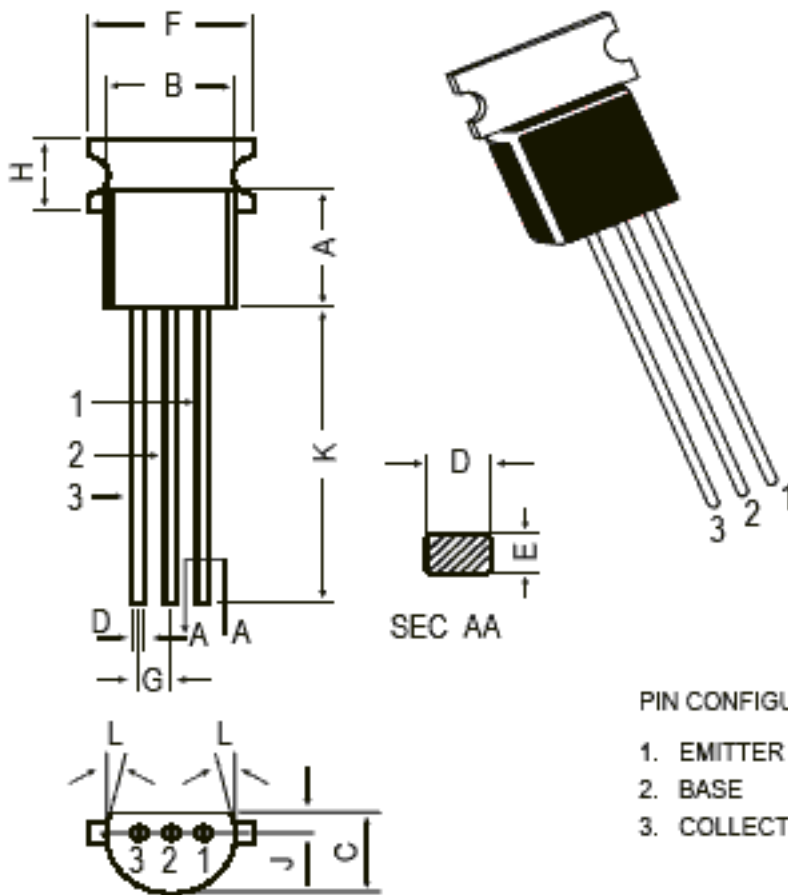
*Pulse Condition: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$

CLASSIFICATION	A	B
h_{FE}	50-120	100-200

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All dimensions in mm.

DIM	MIN.	MAX.
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	—	5.40
G	1.14	1.40
H	—	2.54
K	12.70	—
L	5 DEG	
J	1.14	1.53

PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-237 Bulk	1K/polybag	240 gm/1K pcs	3" x 7.5" x 7.5"	5K	17" x 15" x 13.5"	80K	26.2 kgs
TO-237 T&A	2K/ammo box	725 gm/2K pcs	12.5" x 8" x 1.8"	2K	17" x 15" x 13.5"	32K	13.8 kgs

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 in the Data Sheet and on the CDIL Web Site/CD is 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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