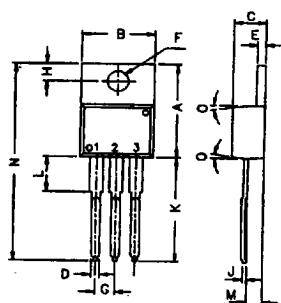
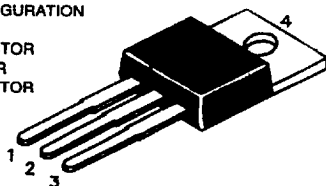


BD905, 907, 909, 911 NPN PLASTIC POWER TRANSISTORS BD906, 908, 910, 912 PNP PLASTIC POWER TRANSISTORS

Power linear and switching applications

PIN CONFIGURATION

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



ALL DIMENSIONS ARE IN M.M.

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	—	6,35
M	2,03	2,92
N	—	31,24
O	7 DEG	

ABSOLUTE MAXIMUM RATINGS

			905	907	909	911
			906	908	910	912
Collector-base voltage (open emitter)	V_{CBO}	max.	45	60	80	100 V
Collector-emitter voltage (open base)	V_{CEO}	max.	45	60	80	100 V
Emitter and collector current	I_E, I_C	max.			15	A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.			90	W
Junction temperature	T_j	max.			150	$^\circ\text{C}$
Collector-emitter saturation voltage						
$I_C = 10 \text{ A}; I_B = 2.5 \text{ A}$	V_{CEsat}	max.			3.0	V
D.C. current gain						
$I_C = 0.5 \text{ A}; V_{CE} = 4 \text{ V}$	h_{FE}	min.			40	
		max.			250	

RATINGS (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Limiting values

			905	907	909	911
			906	908	910	912
Collector-base voltage (open emitter)	V_{CBO}	max.	45	60	80	100 V
Collector-emitter voltage (open base)	V_{CEO}	max.	45	60	80	100 V

Emitter-base voltage (open collector)	V_{EBO}	max.	5.0	V
Emitter and collector current	I_E, I_C	max.	15	A
Base current	I_B	max.	5.0	A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.	90	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

			905	907	909	911
			906	908	910	912
Collector cutoff current						
$I_B = 0; V_{CE} = 30\text{ V}$	I_{CEO}	max.	1.0	1.0	-	- mA
$I_B = 0; V_{CE} = 40\text{ V}$	I_{CEO}	max.	-	-	1.0	- mA
$I_B = 0; V_{CE} = 50\text{ V}$	I_{CEO}	max.	-	-	-	1.0 mA
$I_E = 0; V_{CB} = \text{Rated } V_{CBO}$	I_{CBO}	max.		0.5		mA
$I_E = 0; V_{CB} = \text{Rated } V_{CBO}; T_c = 150^\circ\text{C}$	I_{CBO}	max.		5		mA
Emitter cut-off current						
$I_C = 0; V_{EB} = 5\text{ V}$	I_{EBO}	max.		1.0		mA
Breakdown sus voltage						
$I_C = 100\text{ mA}; I_B = 0$	$V_{CEO(sus)}^*$	min.	45	60	80	100 V
Saturation voltages						
$I_C = 5\text{ A}; I_B = 0.5\text{ A}$	V_{CEsat}^*	max.		1.0		V
$I_C = 10\text{ A}; I_B = 2.5\text{ A}$		max.		3.0		V
$I_C = 10\text{ A}; I_B = 2.5\text{ A}$	V_{BEsat}^*	max.		2.5		V
Base-emitter on voltage						
$I_C = 5\text{ A}; V_{CE} = 4\text{ V}$	$V_{BE(on)}^*$	max.		1.5		V
D.C. current gain						
$I_C = 0.5\text{ A}; V_{CE} = 4\text{ V}$	h_{FE}^*	min.		40		
		max.		250		
$I_C = 5\text{ A}; V_{CE} = 4\text{ V}$	h_{FE}^*	min.		15		
		max.		150		
$I_C = 10\text{ A}; V_{CE} = 4\text{ V}$	h_{FE}^*	min.		5.0		
Transition frequency						
$I_C = 0.5\text{ A}; V_{CE} = 4\text{ V}$	f_T	min.		3.0		MHz

* Pulsed: pulse duration = 300 μs , duty cycle = 1.5%