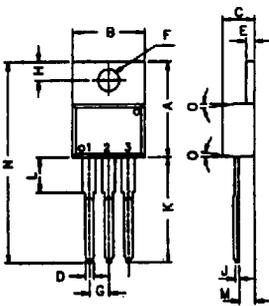
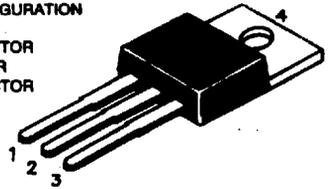


2N6121, 6122, 6123 NPN PLASTIC POWER TRANSISTORS
2N6124, 6125, 6126 PNP PLASTIC POWER TRANSISTORS
Medium Power Linear and Switching Applications

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

		6121	6122	6123	
		6124	6125	6126	
Collector-base voltage (open emitter)	V_{CBO}	max. 45	60	80	V
Collector-emitter voltage (open base)	V_{CEO}	max. 45	60	80	V
Collector current	I_C	max.	4.0		A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.	40		W
Junction temperature	T_j	max.	150		$^\circ\text{C}$
Collector-emitter saturation voltage $I_C = 1.5 \text{ A}; I_B = 0.15 \text{ A}$	V_{CEsat}	max.	0.6		V
D.C. current gain $I_C = 1.5 \text{ A}; V_{CE} = 2 \text{ V}$	h_{FE}	min.	25	25	20
		max.	100	100	80

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

Limiting values		6121	6122	6123	
		6124	6125	6126	
Collector-base voltage (open emitter)	V_{CBO}	max. 45	60	80	V
Collector-emitter voltage (open base)	V_{CEO}	max. 45	60	80	V
Emitter-base voltage (open collector)	V_{EBO}	max.	5.0		V

Collector current	I_C	max.	4.0	A
Collector current (Peak)	I_{CM}	max.	7.0	A
Base current	I_B	max.	1.0	A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.	40	W
Derate above 25°C		max.	320	mW/ $^\circ\text{C}$
Junction temperature	T_j	max.	150	$^\circ\text{C}$
Storage temperature	T_{stg}		-65 to +150	$^\circ\text{C}$

THERMAL RESISTANCE

From junction to case	$R_{th\ j-c}$		3.12	$^\circ\text{C}/\text{W}$
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CHARACTERISTICS

$T_{amb} = 25^\circ\text{C}$ unless otherwise specified

			6121	6122	6123	
			6124	6125	6126	
Collector cutoff current						
$I_B = 0; V_{CE} = 45\text{ V}$	I_{CEO}	max.	1.0	-	-	mA
$I_B = 0; V_{CE} = 60\text{ V}$	I_{CEO}	max.	-	1.0	-	mA
$I_B = 0; V_{CE} = 80\text{ V}$	I_{CEO}	max.	-	-	1.0	mA
$V_{EB(off)} = 1.5\text{ V}; V_{CE} = 45\text{ V}$	I_{CEX}	max.	0.1	-	-	mA
$V_{EB(off)} = 1.5\text{ V}; V_{CE} = 60\text{ V}$	I_{CEX}	max.	-	0.1	-	mA
$V_{EB(off)} = 1.5\text{ V}; V_{CE} = 85\text{ V}$	I_{CEX}	max.	-	-	0.1	mA
$V_{EB(off)} = 1.5\text{ V}; V_{CE} = 45\text{ V}; T_C = 125^\circ\text{C}$	I_{CEX}	max.	2.0	-	-	mA
$V_{EB(off)} = 1.5\text{ V}; V_{CE} = 60\text{ V}; T_C = 125^\circ\text{C}$	I_{CEX}	max.	-	2.0	-	mA
$V_{EB(off)} = 1.5\text{ V}; V_{CE} = 80\text{ V}; T_C = 125^\circ\text{C}$	I_{CEX}	max.	-	-	2.0	mA
$I_E = 0; V_{CB} = 45\text{ V}$	I_{CBO}	max.	0.1	-	-	mA
$I_E = 0; V_{CB} = 60\text{ V}$	I_{CBO}	max.	-	0.1	-	mA
$I_E = 0; V_{CB} = 80\text{ V}$	I_{CBO}	max.	-	-	0.1	mA
Emitter cut-off current						
$I_C = 0; V_{EB} = 5\text{ V}$	I_{EBO}	max.		1.0		mA
Breakdown voltages						
$I_C = 100\text{ mA}; I_B = 0$	$V_{CEO(sus)}^*$	min.	45	60	80	V
$I_C = 1\text{ mA}; I_E = 0$	V_{CBO}	min.	45	60	80	V
$I_E = 1\text{ mA}; I_C = 0$	V_{EBO}	min.		5.0		V
Saturation voltages						
$I_C = 1.5\text{ A}; I_B = 0.15\text{ A}$	V_{CEsat}^*	max.		0.6		V
$I_C = 4\text{ A}; I_B = 1.0\text{ A}$	V_{CEsat}^*	max.		1.4		V
Base-emitter on voltage						
$I_C = 1.5\text{ A}; V_{CE} = 2\text{ V}$	$V_{BE(on)}^*$	max.		1.2		V
D.C. current gain						
$I_C = 1.5\text{ A}; V_{CE} = 2\text{ V}$	h_{FE}^*	min.	25	25	20	
			max.	100	100	80
$I_C = 4\text{ A}; V_{CE} = 2\text{ V}$	h_{FE}^*	min.	10	10	7.0	
Small signal current						
$I_C = 0.1\text{ A}; V_{CE} = 2\text{ V}; f = 1.0\text{ KHz}$	h_{fe}	min.		25		
Transition frequency at $f = 1\text{ MHz}$						
$I_C = 1\text{ A}; V_{CE} = 4\text{ V}$	f_T	min.		2.5		MHz

* Pulse test: pulse width $\leq 300\ \mu\text{s}$; duty cycle $\leq 2\%$.