

**Inchange Semiconductor**

**Product Specification**

**Silicon PNP Power Transistors**

**2N6124 2N6125 2N6126**

**DESCRIPTION**

- With TO-220 package
- Complement to PNP type :  
2N6121 ;2N6122 ;2N6123

**APPLICATIONS**

- For use in power amplifier and switching circuit applications

**PINNING**

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base



Fig.1 simplified outline (TO-220) and symbol

**Absolute maximum ratings(Ta=25 )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N6124	-45	V
		2N6125	-60	
		2N6126	-80	
V <sub>CEO</sub>	Collector-emitter voltage	2N6124	-45	V
		2N6125	-60	
		2N6126	-80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-4	A
I <sub>CM</sub>	Collector current-peak		-8	A
I <sub>B</sub>	Base current		-1	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25	40	W
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	Storage temperature		-65~150	

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance from junction to case	3.125	/W

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT		
V <sub>CE0(SUS)</sub>	Collector-emitter sustaining voltage	2N6124	I <sub>C</sub> =-0.1A ; I <sub>B</sub> =0	-45			V	
		2N6125		-60				
		2N6126		-80				
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-1.5A; I <sub>B</sub> =-0.15A			-0.6	V		
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-4.0A; I <sub>B</sub> =-1.0A			-1.4	V		
V <sub>BE(on)</sub>	Base-emitter on voltage	I <sub>C</sub> =-1.5A ; V <sub>CE</sub> =-2V			-1.2	V		
I <sub>CEx</sub>	Collector cut-off current	2N6124	V <sub>CE</sub> =-45V; V <sub>BE</sub> =1.5V T <sub>C</sub> =125			-0.1 -2.0	mA	
		2N6125		V <sub>CE</sub> =-60V; V <sub>BE</sub> =1.5V T <sub>C</sub> =125				-0.1 -2.0
		2N6126		V <sub>CE</sub> =-80V; V <sub>BE</sub> =1.5V T <sub>C</sub> =125				-0.1 -2.0
I <sub>CEO</sub>	Collector cut-off current	2N6124	V <sub>CE</sub> =-45V; I <sub>B</sub> =0				mA	
		2N6125		V <sub>CE</sub> =-60V; I <sub>B</sub> =0				-1.0
		2N6126		V <sub>CE</sub> =-80V; I <sub>B</sub> =0				
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-1.0	mA		
h <sub>FE-1</sub>	DC current gain	2N6124	I <sub>C</sub> =-1.5A ; V <sub>CE</sub> =-2V	25		100		
		2N6125				80		
		2N6126						
h <sub>FE-2</sub>	DC current gain	2N6124	I <sub>C</sub> =-4A ; V <sub>CE</sub> =-2V	10				
		2N6125						
		2N6126				7		
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-4V	2.5			MHz		

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PACKAGE OUTLINE

