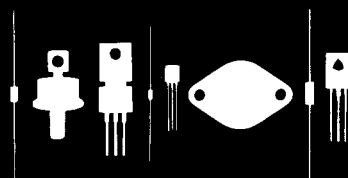


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145 Adams Avenue
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2N6121 2N6122 2N6123 NPN
2N6124 2N6125 2N6126 PNP
COMPLEMENTARY SILICON
POWER TRANSISTORS

JEDEC TO-220 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6121 series types are Complementary Silicon Power Transistors designed for power amplifier and switching applications.

MAXIMUM RATINGS ($T_C=25^\circ\text{C}$)

	SYMBOL	2N6121 2N6124	2N6122 2N6125	2N6123 2N6126	UNIT
Collector-Base Current	V_{CBO}	45	60	80	V
Collector-Emitter Voltage	V_{CEO}	45	60	80	V
Emitter-Base Voltage	V_{EBO}	5.0	5.0	5.0	V
Collector Current	I_C	4.0	4.0	4.0	A
Base Current	I_B	1.0	1.0	1.0	A
Power Dissipation	P_D	40	40	40	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 TO +150			$^\circ\text{C}$
Thermal Resistance	θ_{JC}	3.1	3.1	3.1	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N6121		2N6122		2N6123		UNIT
		2N6124	MIN	MAX	2N6125	MIN	MAX	
BV_{CEO}	$I_C=0.1\text{A}$		45		60		80	V
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V}$			0.1		0.1		0.1
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V } (T_C=125^\circ\text{C})$			2.0		2.0		2.0
I_{CEO}	$V_{CE}=\text{Rated } V_{CEO}$			1.0		1.0		1.0
I_{CBO}	$V_{CE}=\text{Rated } V_{CBO}$			0.1		0.1		0.1
I_{EBO}	$V_{BE}=5.0\text{V}$			1.0		1.0		1.0
$V_{CE}(\text{SAT})$	$I_C=1.5\text{A}, I_B=0.15\text{A}$			0.6		0.6		0.6
$V_{CE}(\text{SAT})$	$I_C=4.0\text{A}, I_B=1.0\text{A}$			1.4		1.4		1.4
$V_{BE}(\text{ON})$	$V_{CE}=2.0\text{V}, I_C=1.5\text{A}$			1.2		1.2		1.2
h_{FE}	$V_{CE}=2.0\text{V}, I_C=1.5\text{A}$		25	100	25	100	20	80
h_{FE}	$V_{CE}=2.0\text{V}, I_C=4.0\text{A}$		10		10		7.0	
h_{fe}	$V_{CE}=2.0\text{V}, I_C=0.1\text{A}, f=1.0\text{kHz}$		25		25		25	
f_T	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}, f=1.0\text{MHz}$		2.5		2.5		2.5	MHz

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