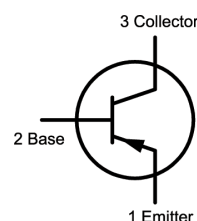
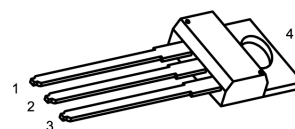
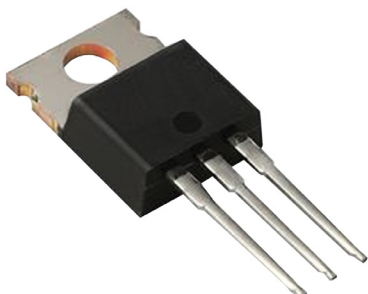


Transistor

General Purpose



RoHS
Compliant



Pin Configuration:

1. Emitter
2. Base
3. Collector

Description:

A Silicon epitaxial PNP Darlington transistor in a TO-220 type Case designed for general-purpose amplifier and Low speed switching circuits.

Features:

- High DC Current Gain
- Collector-Emitter Sustaining Voltage $V_{CEO(SUS)}=100V$ Min.
- Monolithic Construction With Built-in Base-Emitter Shunt Resistors

Maximum Ratings:

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	80	V
Collector-Base Voltage	V_{CB}		
Emitter-Base Voltage	V_{EB}		
Collector Current -Continuous -Peak	I_C	8 16	A
Base Current	I_B	120	mA
Total Device Dissipation $-(T_C = +25^\circ C)$, Derate Above $25^\circ C$	P_D	75	W
Total Device Dissipation $-(T_A = +25^\circ C)$, Derate Above $25^\circ C$		0.6	
Operating Junction Temperature Range	T_J	-65 to +150	$^\circ C$
Storage Temperature Range,	T_{stg}		
Thermal Resistance, Junction-to-Case,	R_{thJC}	1.67	$^\circ C/W$
Thermal Resistance, Junction-to-Ambient,	R_{thJA}	57	

www.element14.com
www.farnell.com
www.newark.com



Transistor

General Purpose



Electrical Characteristics: ($T_C = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Max	Unit
Collector-Emitter Saturation Voltage	$V_{CEO(SUS)}$	$I_C = 100\text{mA}, I_B = 0$, Note 1	80	-	V
Collector Cutoff Current	I_{CEO}	$V_{CE} = 80\text{V}, I_B = 0$	-	20	μA
	I_{CEX}	$V_{CE} = 80\text{V}, V_{BE(off)} = -1.5\text{V}$		200	
		$V_{CE} = 80\text{V}, V_{BE(off)} = -1.5\text{V}, T_C = +150^\circ\text{C}$			
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$		2	mA

On Characteristics

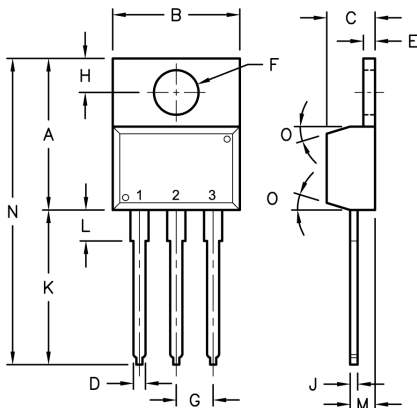
DC Current Gain	h_{FE}	$V_{CE} = 4\text{V}, I_C = 4\text{A}$	1,000	20,000	-
		$V_{CE} = 4\text{V}, I_C = 8\text{A}$	100	-	
Collector-Emitter Saturation Voltage	$V_{CE(Sat)}$	$I_C = 4\text{A}, I_B = 16\text{mA}$	-	2	V
		$I_C = 8\text{A}, I_B = 80\text{mA}$		4	
Base-Emitter ON Voltage	$V_{BE(on)}$	$V_{CE} = 4\text{V}, I_C = 4\text{A}$		2.8	

Dynamic Characteristics

Small-Signal Current Gain	h_{fe}	$V_{CE} = 5\text{V}, I_C = 1\text{A}, f = 1\text{MHz}$	4	-	-
	h_{fe}	$V_{CE} = 4\text{V}, I_C = 3\text{A}, f = 1\text{kHz}$	300		
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = .1\text{MHz}$	-	300	μF

Note:

- Pulse Width = 300 μs , Duty Cycle $\leq 2\%$



Dimension	Min.	Max.
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	-	0.9
E	1.15	1.4
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	-	0.56
K	12.7	14.73
L	2.8	4.07
M	2.03	2.92
N	-	31.24
O	7°	

Dimensions : Millimetres

Pin Configuration:

- Emitter
- Base
- Collector

Part Number Table

Description	Part Number
Transistor, PNP, 8A, 80V, TO-220	2N6124

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.