# multicomp PRO



## Features:

- Devices with breakdown voltages of 160V minimum, for applications requiring relatively low collector current, such as lamp drivers and neon tubes
- Designed for general purpose applications requiring high breakdown voltages
- · Low saturation voltages and low capacitance



### Pin Configuration:

1. Collector

2. Base

3. Emitter

## **Absolute Maximum Ratings**

Symbol	Value	Units	
V <sub>CEO</sub>	200		
V <sub>CBO</sub>	300	V	
V <sub>EBO</sub>	5		
Ι <sub>C</sub>	500	mA	
Pp	625 5	W	
	1.5 12	mW/°C	
T <sub>j</sub> , T <sub>stg</sub>	-55 to +150	°C	
	V <sub>CEO</sub> V <sub>CBO</sub> V <sub>EBO</sub> I <sub>C</sub> P <sub>D</sub>	$ \frac{V_{CEO}}{V_{CBO}} = \frac{300}{300} $ $ \frac{V_{CBO}}{V_{EBO}} = \frac{5}{5} $ $ \frac{I_C}{5} = \frac{625}{5} $ $ \frac{625}{5} = \frac{1.5}{12} $	

#### Thermal Resistance

Junction to Ambient	R <sub>th (j-a)</sub>	200	°C/W
Junction to Case	R <sub>th (j-c)</sub>	83.3	C/W

# Electrical Characteristics ( $T_a = 25^{\circ}C$ unless otherwise specified)

Description	Symbol	Test Condition	Minimum	Maximum	Unit
Collector-Emitter Voltage	V <sub>CEO</sub> *	I <sub>C</sub> = 1mA, I <sub>B</sub> = 0	300	-	
Collector-Base Voltage	V <sub>CBO</sub>	Ι <sub>C</sub> = 100μΑ, Ι <sub>E</sub> = 0	500	-	V
Emitter-Base Voltage	V <sub>EBO</sub>	Ι <sub>Ε</sub> = 10μΑ, Ι <sub>C</sub> = 0	5	-	
Collector-Cut off Current	I <sub>CBO</sub>	V <sub>CB</sub> = 200V, I <sub>E</sub> = 0	-	250	nA

\*Pulse Test: Pulse Width = 300µs, Duty Cycle = 2%.

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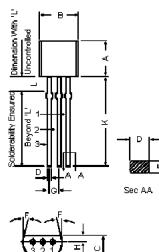
# Electrical Characteristics (T<sub>a</sub> = 25°C unless otherwise specified)

Description	Symbol	Test Condition	Minimum	Maximum	Unit
Emitter-Cut off Current	I <sub>EBO</sub>	V <sub>EB</sub> = 3V, I <sub>C</sub> = 0	-	100	nA
	$h_{FE}^{*}$ $I_{C} = 1mA, V_{CE} = 10V$ $I_{C} = 10mA, V_{CE} = 10V$ $I_{C} = 30mA, V_{CE} = 10V$	25	-	-	
DC Current Gain		$h_{FE}^{*}$ $I_{C} = 10MA, V_{CE} = 10V$	40	-	-
		25	-	-	
Collector Emitter Saturation Voltage	V <sub>CE (sat)</sub> *	I <sub>C</sub> = 20mA, I <sub>B</sub> = 2mA	-	0.5	V
Base Emitter Saturation Voltage	V <sub>BE (sat)</sub> *	I <sub>C</sub> = 20mA, I <sub>B</sub> = 2mA	-	0.9	V

#### **Dynamic Characteristics**

Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = 20V, I <sub>C</sub> = 10mA f = 100MHz	50	-	MHz
Collector Base Capacitance	C <sub>CB</sub>	$V_{CB} = 20V, I_{E} = 0$ f = 1MHz	-	6	pF

\*Pulse Test: Pulse Width = 300µs, Duty Cycle = 2%.



Dimensions	Minimum	Maximum	
А	4.32	5.33	
В	4.45	5.2	
С	3.18	4.19	
D	0.41	0.55	
E	0.35	0.5	
F	5°		
G	1.14	1.4	
Н		1.53	
К	12.7	-	
Dimensions : Millimetres			

**Dimensions : Millimetres** 

#### Pin Configuration:

1. Collector

- 2. Base
- 3. Emitter

## Part Number Table

Description	Part Number
Transistor, PNP, TO-92	MPSA92

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