



element14

EN - For pricing and availability in your local country please visit one of the below links:

DE - Informationen zu Preisen und Verfügbarkeit in Ihrem Land erhalten Sie über die unten aufgeführten Links:

FR - Pour connaître les tarifs et la disponibilité dans votre pays, cliquez sur l'un des liens suivants:

[2N4870](#)

EN

This Datasheet is presented by
the manufacturer

DE

Dieses Datenblatt wird vom
Hersteller bereitgestellt

FR

Cette fiche technique est
présentée par le fabricant



Description:

A PN unijunction transistor in a TO-92 type package designed for use in pulse and timing circuits, sensing circuits and thyristor trigger circuits



Absolute maximum Ratings :

(Ta = +25°C unless otherwise specified)

Power Dissipation, P _D	: 300mW
Derate Above 25°C	: 3.0mW/°C
RMS Emitter Current, I _{E(RMS)}	: 50mA
Peak Pulse Emitter Current (Note 1) Current, i _E	: 1.5A
Emitter Reverse Voltage, V _{B2E}	: 30V
Interbase Voltage, V _{B2B1}	: 35V
Operating Junction Temperature Range, T _J	: -65°C to +125°C
Storage Temperature Range, T _{stg}	: -65°C to +150°C

Electrical Characteristics: (Ta = +25°C Unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Intrinsic Standoff Ratio		V _{B2B1} = 10V, Note3	0.56	-	0.75	-
Interbase Resistance	r _{BB}		4	6	9.1	kΩ
Interbase Resistance Temperature Coefficient			0.1	-	0.9	%/°C
Emitter Saturation Voltage	V _{EB1(sat)}	V _{B2B1} = 10V, I _E = 50mA, Note 4	-	2.5	-	V
Modulated interbase Current	I _{B2(mod)}	V _{B2B1} = 10V, I _E = 50mA	-	15	-	mA
Emitter Reverse Current	I _{EB20}	V _{B2E} = 30V, I _{B1} = 0	-	0.005	1	μA
Peak Point Emitter Current	I _P	V _{B2B1} = 25V	-	1	5	μA
Valley Point Current	I _V	V _{B2B1} = 20V, R _{B2} = 100Ω, Note 4	2	5	-	mA
Base-One Peak Pulse Voltage	V _{OB1}		3	6	-	V

Notes:

1. Duty Cycle ≤ 1% PRR = 10PPS.
2. Based upon power dissipation at Ta = +25°C
3. Intrinsic standoff ratio is essentially constant with temperature and interbase voltage and is defined by the equation:

$$V_p - V_{bb} + V_d$$

Where: V_p = Peak Point Emitter Voltage; V_{bb} = interbase Voltage;

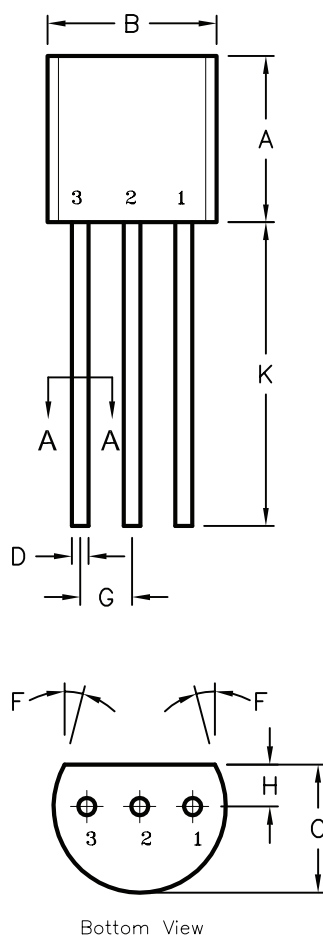
V_d = Junction Diode Drop (~0.5V).

5. Use Pulse techniques: Pulse width ~ 300μs, Duty Cycle ≤ 2% to avoid internal heating due to inter-base modulation which may result in erroneous readings

Unijunction Transistor

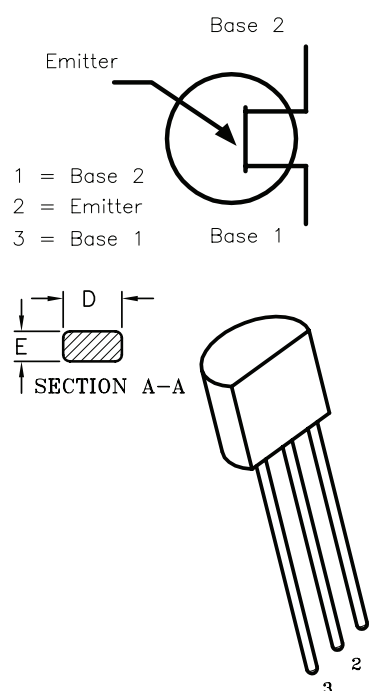


TO-92



Dim	Min	Max
A	4.3	5.33
B	4.45	5.2
C	3.18	4.19
D	0.41	0.55
E	0.35	0.5
F	5°	
G	1.14	1.4
H	1.14	1.53
K	12.7	-

Dimensions : Millimetres



Part Number Table

Description	Part Number
Unijunction Transistor, TO-92, PN	2N4870

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.



element14

EN - For pricing and availability in your local country please visit one of the below links:

DE - Informationen zu Preisen und Verfügbarkeit in Ihrem Land erhalten Sie über die unten aufgeführten Links:

FR - Pour connaître les tarifs et la disponibilité dans votre pays, cliquez sur l'un des liens suivants:

[2N4870](#)

EN

This Datasheet is presented by
the manufacturer

DE

Dieses Datenblatt wird vom
Hersteller bereitgestellt

FR

Cette fiche technique est
présentée par le fabricant