

DATA SHEET

Dual and Mono cased
145 V to 276 V
**PTC thermistors for
degaussing**

Product specification
Supersedes data of 17th May 1999
File under BCcomponents, BC02

2000 Sep 19

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FEATURES

- Residual currents as low as 2 mA (p-p), ideal for high-resolution displays
- Long decay time
- Stable performance over a long time (>20000 operations)
- Self-extinguishing white plastic case ("UL 94.V.0")
- Design-in support available.

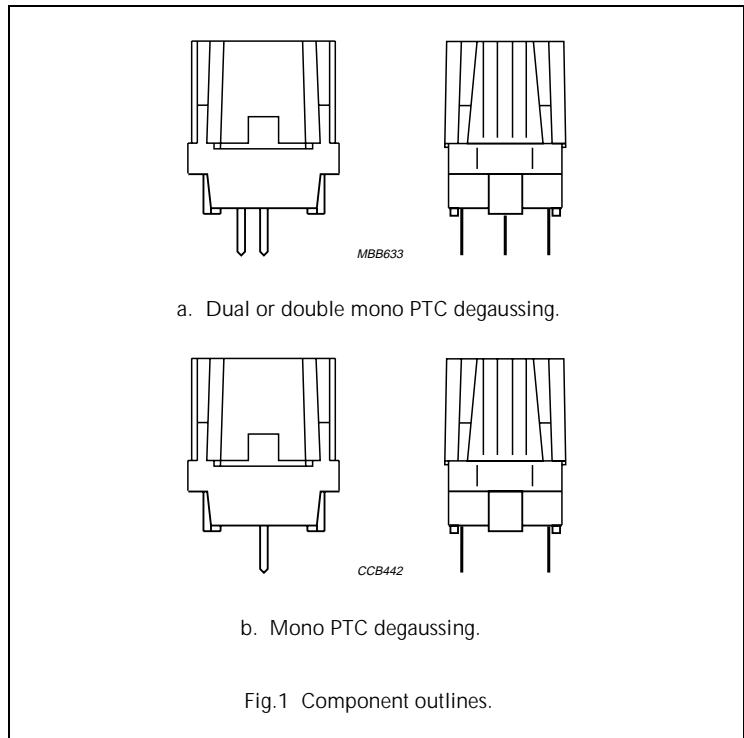
APPLICATIONS

- Colour televisions
- Colour monitors.

DESCRIPTION

For good picture definition, colour televisions and monitors must be degaussed by a strong alternating magnetic field which gradually and symmetrically decays to a small value of residual current. This can be achieved by connecting a PTC thermistor in the degaussing circuit.

The new generation of flat-screen, high-definition colour televisions and monitors require an excellent picture quality with high colour purity. This can only be achieved by a dual PTC device housing two PTC thermistors in intimate thermal contact, one being used to heat the other and so further reduce the residual current.



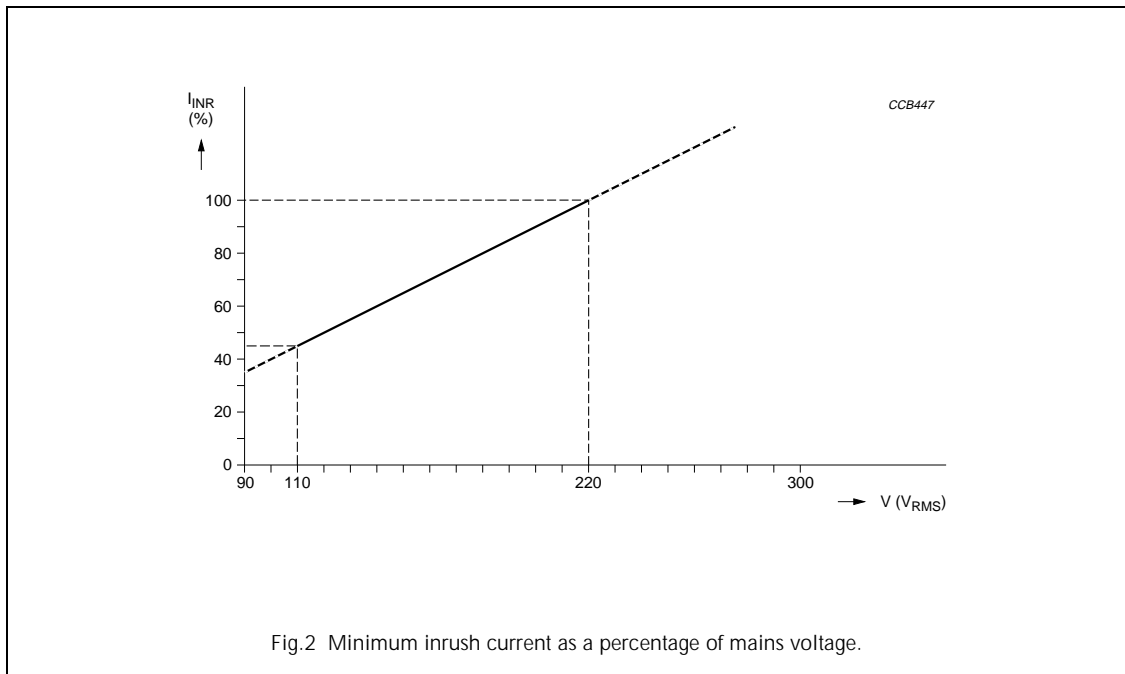
QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Resistance of degaussing PTC (R_s) at 25 °C	3 to 30	Ω
Standard tolerance on resistance of degaussing PTC (R_s) at 25 °C	20 and 25	%
Resistance of heater PTC (R_p) at 25 °C	3000	Ω
Standard tolerance on resistance of heater PTC (R_p) at 25 °C	75	%
Maximum AC voltage (RMS value)	145 to 276	V
Minimum inrush current (peak-to-peak value)	10 to 30	A
Temperature range (at maximum voltage)	0 to 60	°C
Available pitch:		
4e/1e	10.16 to 2.54	mm
4e/2e	10.16 to 5.08	mm
Standard pin length	4.2	mm
Detailed specifications based on	CECC 44000/IEC 60738	

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INRUSH CURRENT



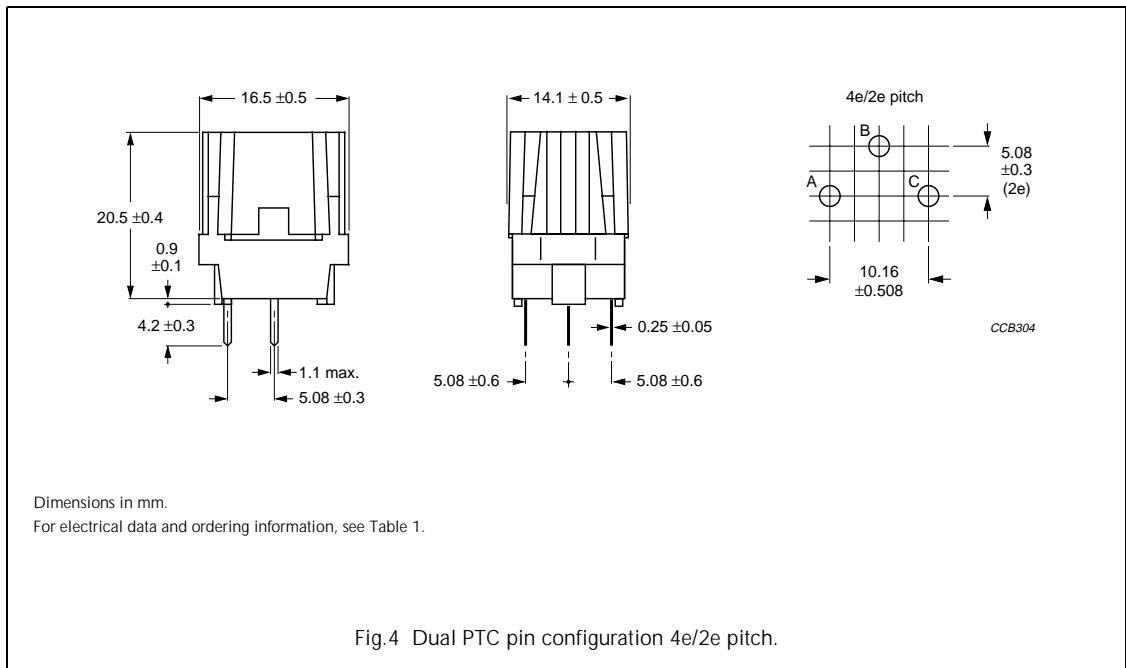
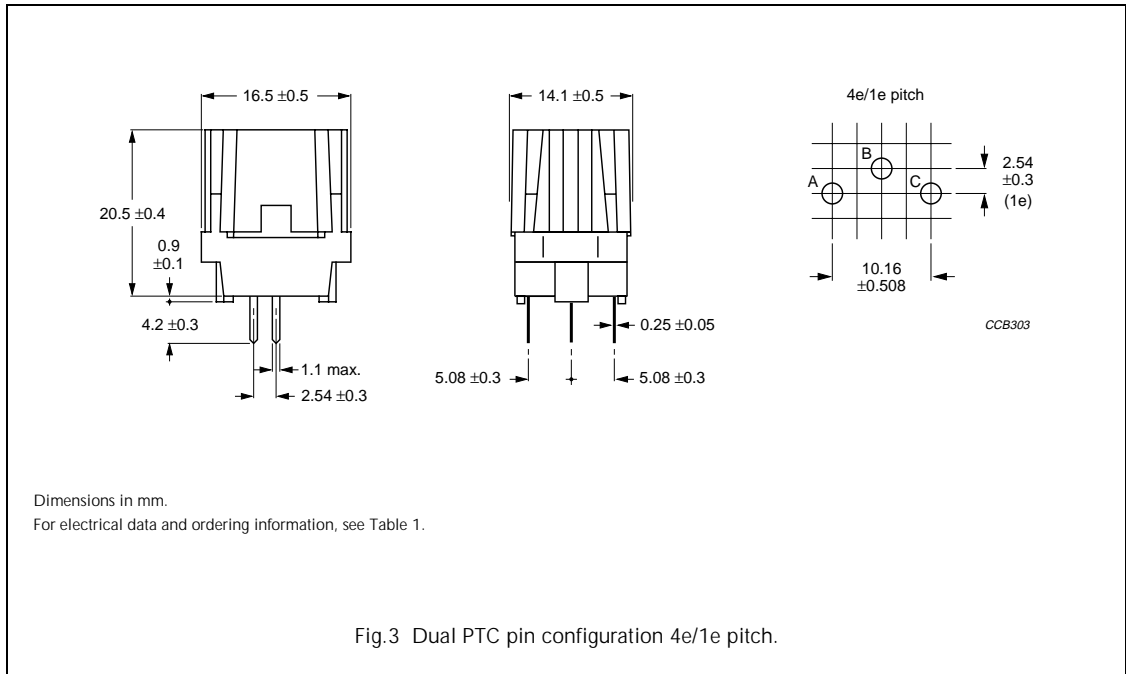
Application specific data

The data shown in Tables 1 and 2 is obtained from measurements at reference parameters. If these parameters do not correspond to the application parameters required, refer to Figures 7 to 13 in this data handbook, section "Introduction, PTC thermistors for degaussing".

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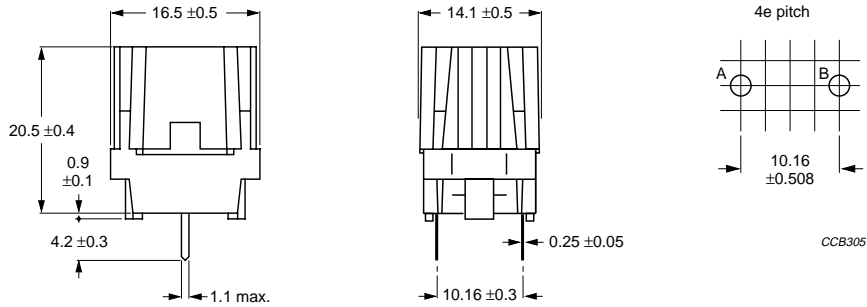
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MECHANICAL DATA



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Dimensions in mm.

For electrical data and ordering information, see Table 2.

Fig.5 Mono PTC pin configuration 4e pitch.

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ELECTRICAL DATA AND ORDERING INFORMATION

Dual range

Table 1 Electrical data and catalogue numbers. The shading indicates preferred types.

MINIMUM PEAK-TO-PEAK ⁽¹⁾⁽⁶⁾ INRUSH CURRENT (A)	MAXIMUM PEAK-TO-PEAK ⁽¹⁾ RESIDUAL CURRENT (mA)			R ₂₅ ⁽²⁾ (Ω)		R _{coil} ⁽³⁾⁽⁶⁾ (Ω)		TYPICAL DECAY PERFORMANCE		TYPE ⁽⁷⁾	CATALOGUE NUMBER ⁽⁸⁾ 2322 662	
	after 5 s	after 30 s	after 180 s	R _s	±%	MIN.	TYP.	DECAY TIME ⁽⁴⁾⁽⁶⁾ (ms)	ALPHA MAX. ⁽⁵⁾ (%)		4e/1e pitch	4e/2e pitch
U_R = 220 to 240 V_{RMS} (U_{max} = 276 V_{RMS})												
11	50	5	2	30	25	17	25	60	36	–	2322 662 96209	2322 662 96309
14	50	5	2	26	25	14	17	40	43	–	2322 662 96211	2322 662 96311
16	80	8	4	22	25	14	17	40	44	–	2322 662 96216	2322 662 96316
16	80	8	2	22	25	10	17	65	33	LD	2322 662 96616	2322 662 96716
20	80	8	2	18	25	10	13	50	38	–	2322 662 96624	2322 662 96724
18	80	15	2	18	25	10	17	75	29	LD	2322 662 96626	2322 662 96726
25	80	10	4	14	25	10	10	40	45	–	2322 662 96602	2322 662 96702
25	80	10	4	14	25	10	10	45	40	LD	2322 662 96642	2322 662 96742
21	80	10	5	12	20	10	17	70	36	LT	2322 662 96606	2322 662 96706
21	100	20	5	12	20	10	17	80	30	LD/LT	2322 662 96646	2322 662 96746
20	100	40	5	9	20	13	20	95	33	LT	2322 662 96608	2322 662 96708
20	100	25	10	9	20	13	20	115	26	LD/LT	2322 662 96648	2322 662 96748
21	100	40	10	7	20	20	20	100	33	LD/LT	–	2322 662 96709

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	after 5 s	after 30 s	after 180 s	R _s	±%	MIN.	TYP.	DECAY TIME ⁽⁴⁾⁽⁶⁾ (ms)	ALPHA MAX. ⁽⁵⁾ (%)		4e/1e pitch	4e/2e pitch
U_R = 100 to 120 V_{RMS} (U_{max} = 145 V_{RMS})												
19	200	20	10	7	20	5	7	80	31	LT	2322 662 96213	2322 662 96313
27	200	50	14	5	30/15	5	6	85	30	–	2322 662 96605	2322 662 96705
30	200	20	10	5	20	4	5	85	31	LD/LT	2322 662 96645	2322 662 96745
30	200	20	10	3	30/15	4	6	115	29	LD	2322 662 96643	2322 662 96743

Notes

- All peak-to-peak currents are measured at typical resistance of the coil at 220 V, 50 Hz (AC) and at 25 °C.
- Lower tolerances on resistance of degaussing PTC are available on request.
- Lower minimum coil resistance is available on request.
- Decay time is the time from the moment of maximum peak current until the half of the maximum peak inrush current.
- Alpha maximum is the maximum decrease in current expressed in percent between two successive peaks.
- Inrush currents and decay times at other voltage coil combinations can be derived from Figures 7 to 13 in this data handbook, section *"Introduction, PTC thermistors for degaussing"*.
- LT = low tolerance; LD = long decay.
- Smallest packaging quantity (SPQ) = 600 units.

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Mono cased range

Table 2 Electrical data and catalogue numbers. The shading indicates preferred types.

MINIMUM PEAK-TO-PEAK ⁽¹⁾ INRUSH CURRENT (A)	MAXIMUM PEAK-TO-PEAK ⁽¹⁾ RESIDUAL CURRENT (mA)			R ₂₅ ⁽²⁾ (Ω)		R _{coil} ⁽³⁾⁽⁶⁾ (Ω)		TYPICAL DECAY PERFORMANCE		TYPE ⁽⁷⁾	CATALOGUE NUMBER ⁽⁸⁾ 2322 662
	after 5 s	after 30 s	after 180 s	R _s	±%	MIN.	TYP.	DECAY TIME ⁽⁴⁾⁽⁶⁾ (ms)	ALPHA MAX. ⁽⁵⁾ (%)		4e pitch
U _R = 220 to 240 V _{RMS} (U _{max} = 276 V _{RMS})											
11	100	40	20	30	25	17	25	75	30	–	2322 662 96281
12	50	30	20	26	25	14	25	90	30	–	2322 662 96688
16	80	40	20	22	25	14	17	40	44	–	2322 662 96286
20	100	50	25	18	25	10	13	50	38	–	2322 662 96682
25	200	50	30	14	25	10	10	40	45	–	2322 662 96683
25	200	80	30	14	20	10	10	45	40	LD	2322 6 62 96692
21	200	80	30	12	20	10	17	70	36	–	2322 662 96684
21	200	80	30	12	25	10	17	80	30	LD	2322 662 96696
20	100	50	30	9	20	13	20	95	33	LT	2322 662 96687
20	200	50	25	9	20	13	20	115	26	LD/LT	2322 662 96698
21	100	50	30	7	20	20	20	100	33	LD/LT	2322 662 96681

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	after 5 s	after 30 s	after 180 s	R _s	±%	MIN.	TYP.	DECAY TIME ⁽⁴⁾⁽⁶⁾ (ms)	ALPHA MAX. ⁽⁵⁾ (%)		4e pitch
U_R = 100 to 120 V_{RMS} (U_{max} = 145 V_{RMS})											
19	200	70	40	7	20	5	7	80	31	–	2322 662 96285
27	200	70	40	5	30/15	5	6	85	30	–	2322 662 96686
30	200	70	40	5	20	4	5	85	31	LD	2322 662 96695
30	200	70	40	3	30/15	4	6	115	29	LD	2322 662 96693

Notes

- All peak-to-peak currents are measured at typical resistance of the coil at 220 V, 50 Hz (AC) and at 25 °C.
- Lower tolerances on resistance of degaussing PTC are available on request.
- Lower minimum coil resistance is available on request.
- Decay time is the time from the moment of maximum peak current until the half of the maximum peak inrush current.
- Alpha maximum is the maximum decrease in current expressed in percent between two successive peaks.
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