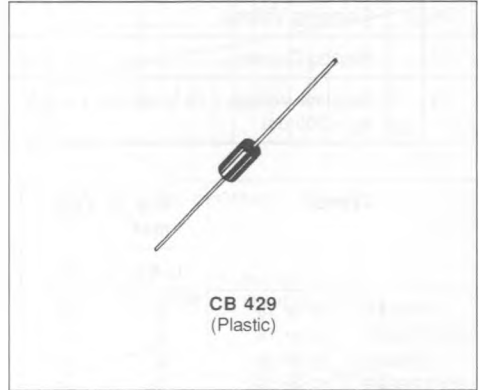


- BIDIRECTIONAL DEVICE USED TO **TELEPHONE PROTECTION**
- CHARACTERISTIC OF STAND-OFF AND BREAKDOWN VOLTAGE SIMILAR TO A TRANSIL (V_{off})
- HIGH FLOWOUT CAPABILITY BECAUSE OF ITS BREAKOVER CHARACTERISTIC (V_{on})


ABSOLUTE RATINGS (limiting values) ($T_{amb} = 25\text{ }^{\circ}\text{C}$ - L = 10 mm)

| Symbol | Parameter | | Value | Unit |
|-----------|--|--|-------------|--------------------|
| P | Power Dissipation on Infinite Heatsink | $T_{amb} = 50\text{ }^{\circ}\text{C}$ | 5 | W |
| I_{pp} | Peak Pulse Current | 1 ms expo | 100 | A |
| | | 8-20 μs expo* | 150 | |
| I_{TSM} | Non Repetitive Surge Peak on-state Current | $t_p = 20\text{ ms}$ | 50 | A |
| di/dt | Critical Rate of Rise of on-state Current | Non Repetitive | 100 | A/ μs |
| dv/dt | Critical Rate of Rise of off-state Voltage | 67 % $V_{(BR)}$ min | 5 | kV/ μs |
| T_{stg} | Storage and Operating Junction Temperature Range | | - 40 to 150 | $^{\circ}\text{C}$ |
| T_L | | | 150 | $^{\circ}\text{C}$ |
| T_L | Maximum Lead Temperature for Soldering During 10 s at 4 mm from Case | | 230 | $^{\circ}\text{C}$ |

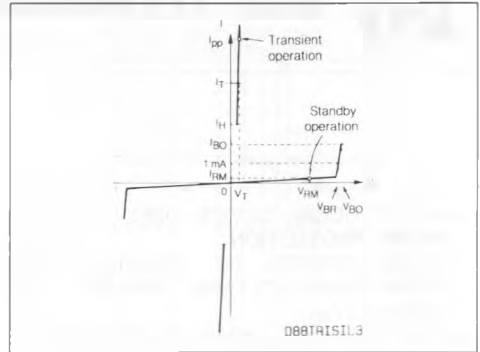
THERMAL RESISTANCES

| Symbol | Parameter | | Value | Unit |
|---------------|-------------------------------------|-----------|-------|-----------------------------|
| $R_{th(j-l)}$ | Junction-leads on Infinite Heatsink | L = 10 mm | 20 | $^{\circ}\text{C}/\text{W}$ |
| $R_{th(j-a)}$ | Junction-ambient on Printed Circuit | | 75 | $^{\circ}\text{C}/\text{W}$ |

ELECTRICAL CHARACTERISTICS

($T_I = 25\text{ }^\circ\text{C}$)

| Symbol | Parameter |
|----------|--|
| V_{RM} | Stand-off Voltage |
| V_{BR} | Breakdown Voltage |
| V_{BO} | Clamping Voltage |
| I_H | Holding Current |
| V_T | On-state Voltage : 1.6 V typ. @ $I_T = 1\text{ A}$ ($t_p = 300\text{ }\mu\text{s}$) |



| Types | I_{RM} @ V_{RM} max. | | $V_{(BR)}$ @ I_R min. | | V_{BO} max. | I_{BO} max. | I_H min. |
|------------------------|-----------------------------|-----|----------------------------|------|------------------|------------------|-------------------------|
| | (μA) | (V) | (V) | (mA) | (V) | (mA) | (mA) |
| TPB62A - 12 or 18 | 2 | 56 | 62 | 1 | 82 | 800 | 12 Suffix for 120 mA |
| (1) TPB62B - 12 or 18 | 2 | 56 | 62 | 1 | 75 | 800 | |
| TPB68A - 12 or 18 | 2 | 61 | 68 | 1 | 90 | 800 | |
| (1) TPB68B - 12 or 18 | 2 | 61 | 68 | 1 | 82 | 800 | |
| (1) TPB75A - 12 or 18 | 2 | 67 | 75 | 1 | 100 | 800 | |
| (1) TPB75B - 12 or 18 | 2 | 67 | 75 | 1 | 91 | 800 | |
| (1) TPB82A - 12 or 18 | 2 | 74 | 82 | 1 | 109 | 300 | |
| (1) TPB82B - 12 or 18 | 2 | 74 | 82 | 1 | 99 | 300 | |
| (1) TPB91A - 12 or 18 | 2 | 82 | 91 | 1 | 121 | 300 | |
| (1) TPB91B - 12 or 18 | 2 | 82 | 91 | 1 | 110 | 300 | |
| P TPB100A - 12 or 18 | 2 | 90 | 100 | 1 | 133 | 300 | |
| TPB100B - 12 or 18 | 2 | 90 | 100 | 1 | 121 | 300 | |
| TPB110A - 12 or 18 | 2 | 99 | 110 | 1 | 147 | 300 | |
| TPB110B - 12 or 18 | 2 | 99 | 110 | 1 | 133 | 300 | |
| P TPB120A - 12 or 18 | 2 | 108 | 120 | 1 | 160 | 300 | |
| TPB120B - 12 or 18 | 2 | 108 | 120 | 1 | 145 | 300 | |
| P TPB130A - 12 or 18 | 2 | 117 | 130 | 1 | 173 | 300 | |
| TPB130B - 12 or 18 | 2 | 117 | 130 | 1 | 157 | 300 | |
| (1) TPB150A - 12 or 18 | 2 | 135 | 150 | 1 | 200 | 300 | |
| (1) TPB150B - 12 or 18 | 2 | 135 | 150 | 1 | 181 | 300 | |
| (1) TPB160A - 12 or 18 | 2 | 144 | 160 | 1 | 213 | 300 | |
| (1) TPB160B - 12 or 18 | 2 | 144 | 160 | 1 | 193 | 300 | |
| (1) TPB180A - 12 or 18 | 2 | 162 | 180 | 1 | 240 | 300 | |
| (1) TPB180B - 12 or 18 | 2 | 162 | 180 | 1 | 217 | 300 | |
| (1) TPB200A - 12 or 18 | 2 | 180 | 200 | 1 | 267 | 300 | |
| (1) TPB200B - 12 or 18 | 2 | 180 | 200 | 1 | 241 | 300 | |
| P TPB220A - 12 or 18 | 2 | 198 | 220 | 1 | 293 | 300 | |
| TPB220B - 12 or 18 | 2 | 198 | 220 | 1 | 265 | 300 | |
| P TPB240A - 12 or 18 | 2 | 216 | 240 | 1 | 320 | 300 | |
| TPB240B - 12 or 18 | 2 | 216 | 240 | 1 | 289 | 300 | |
| P TPB270A - 12 or 18 | 2 | 243 | 270 | 1 | 360 | 300 | |
| TPB270B - 12 or 18 | 2 | 243 | 270 | 1 | 325 | 300 | |

P : Preferred device
(1) : These voltages are on request. Consult us

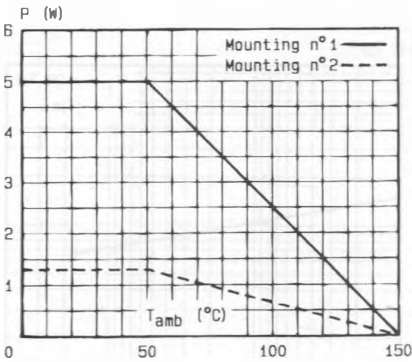


Fig. 1 - Power dissipation versus ambient temperature.

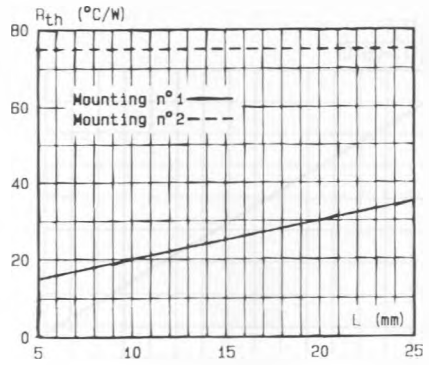


Fig. 2 - Thermal resistance versus lead length.

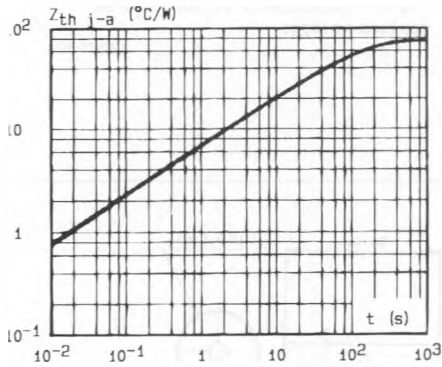


Fig. 3 - Transient thermal impedance junction-ambient for mounting n°2 versus pulse duration ($L = 10 \text{ mm}$).

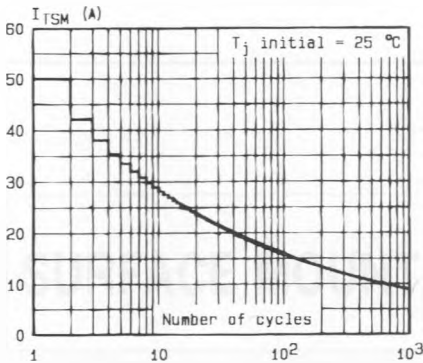
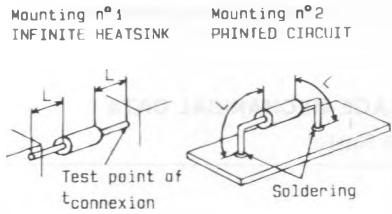


Fig. 4 - Non repetitive surge peak on-state current versus number of cycles.

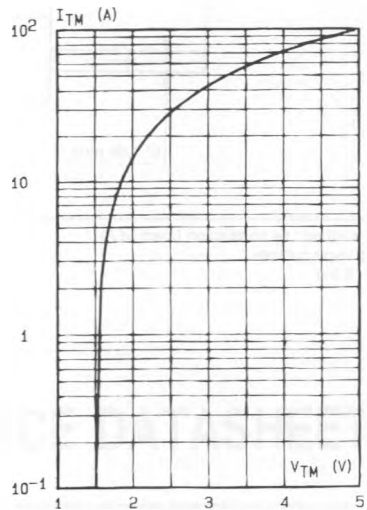


Fig. 5 - Peak forward current versus peak forward voltage drop (typical values).

DBBTPBP3

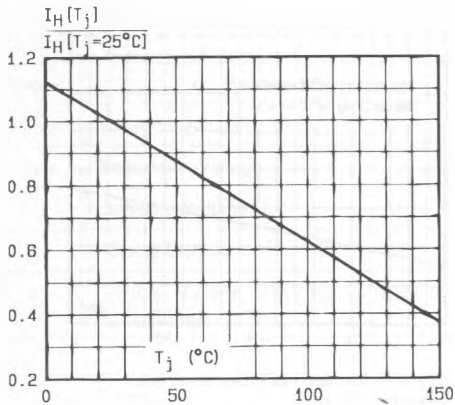


Fig.6 - Relative variation of holding current versus junction temperature

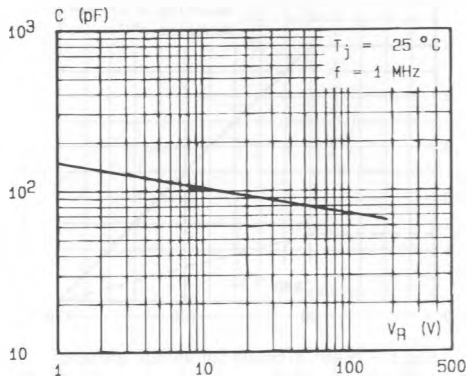
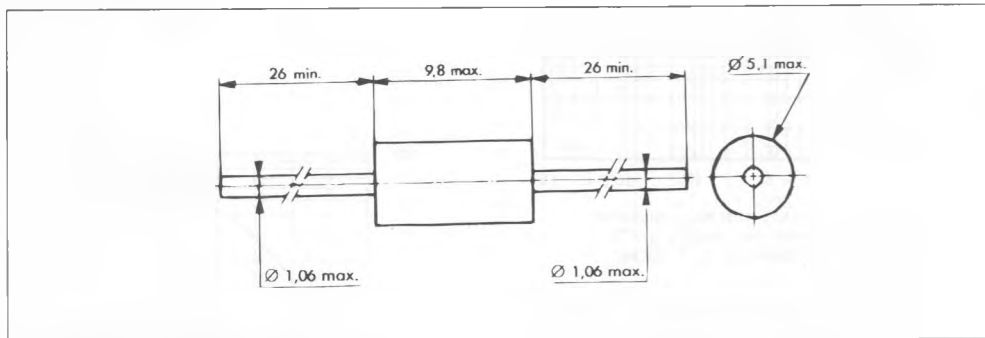


Fig.7 - Capacitance versus reverse applied voltage.

DB8TPBP4

PACKAGE MECHANICAL DATA

CB 429 Plastic



Cooling method : by conduction (method A)

Marking : type number

Weight : 0.9 g