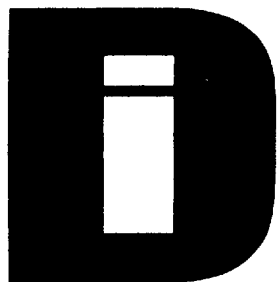


DIONICS INC.

65 RUSHMORE ST., WESTBURY, N.Y. 11590 516 • 997 • 7474



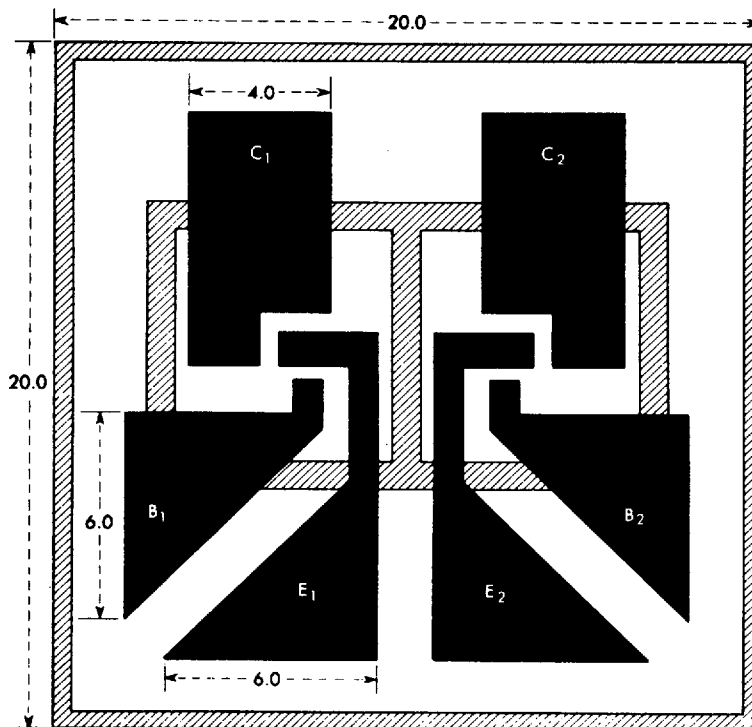
DI 4044 • 4878

DI 4100 • 4879

DI 4045 • 4880

DI 4045-1

NPN SILICON
MATCHED PAIR TRANSISTOR CHIPS
WITH MATCHING CHARACTERISTICS 100% PROBED



Dimensions in Mils



Dielectric
Isolation



Aluminum

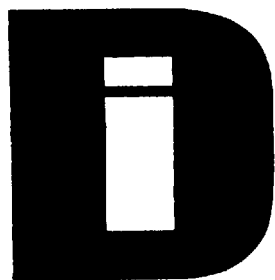
- Chip Thickness=6 Mils $\pm$ 1 Mil
- Min. Dimension Across Bonding Pads=4.0 Mils
- Min. Separation Between Bonding Pads=1.6 Mils
- Distance from Bonding Pads to Edge of Chip=2.0 Mils

Detailed Specifications on Reverse Side.

■ 2848804 0000430 340 ■

DIONICS INC.

65 RUSHMORE ST., WESTBURY, N.Y. 11590 516-997-7474



DI 4044 • 4878
DI 4100 • 4879
DI 4045 • 4880
DI 4045-1

NPN SILICON
MATCHED PAIR TRANSISTOR CHIPS
WITH MATCHING CHARACTERISTICS 100% PROBED

- Dielectric Isolation • Monolithic Construction • Superior Thermal Tracking
- Close Parameter Match • Available in Chip or TO – 5 Package

For hybrid circuits and differential amplifier circuits. The DI number signifies the chip version of the equivalent 2N number.

Among the features are: Dielectric Isolation; monolithic construction; high DC gain; low capacitance; close parameter match, from 10 μ A to 1 mA; and superior thermal tracking.

The transistor collectors are isolated from each other, and from the bottom of the chip. The chips are gold-backed, permitting conventional eutectic die-bonding techniques. Aluminum metallizing on bonding pads permits utilization of conventional wire-bonding techniques.

Since the bottom of the DI chip is not used for electrical contact, it is possible to die-bond with pure epoxy or adhesive films. Excellent mechanical and thermal properties are thus easily achieved, without the substrate or its components being exposed to high temperatures.

A complete cold assembly technique is possible using room-temperature ultrasonic wire-bonding, in conjunction with adhesive die-bonding. Chips are shipped in 2" x 2" plastic compartmented containers, 400 chips in each container, with each chip in its own compartment. Probed slices are individually packed in plastic carriers.

← 100% Probe Tested to These Parameters @ 25°C → ~~Guaranteed~~ (tested on sample basis)

	Matched Characteristics $I_C=10 \mu A$; $V_{CE}=5V$		V_{CB0} Volts Min. @ $I_C=10 \mu A$ $I_E=0$	V_{CE0} Volts Min. @ $I_C=1 mA$ $I_B=0$	V_{EB0} Volts Min. @ $I_E=10 \mu A$ $I_C=0$	I_{CB0} nA Max. @ $I_E=0$ V_{CB} as below	h_{FE} Min. @ $V_{CE}=5V$ @ $I_C=10 \mu A$ @ $I_C=1 mA$		C_{0B} pF Max. @ $I_E=0$ $V_{CB}=5V$	f_t MHz Min. @ $I_C=1 mA$ $V_{CE}=10V$
	V_{BE} Diff. ($V_{BE1}-V_{BE2}$) mV Max.	DC Gain Ratio h_{FE1}/h_{FE2}								
DI 4044 4878	3.0	0.9 to 1.0	60	60	7	0.1 @ $V_{CB}=45$	200	225	0.8	200
DI 4100 4879	5.0	0.85 to 1.0	55	55	7	0.1 @ $V_{CB}=45$	150	175	0.8	150
DI 4045 4880	5.0	0.8 to 1.0	45	45	7	0.1 @ $V_{CB}=30$	80	100	0.8	150
DI 4045-1	10.0	0.8 to 1.0	30	30	7	0.1 @ $V_{CB}=25$	80	100	0.8	150

Dimensional Drawing on Reverse Side.

2/82

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