

# **MODEL CS206 Resistor/Capacitor Networks**

ECL Terminators and Line Terminator Conformal Coated, SIP



### **FEATURES**

- 4 to 18 pins available
- X7R and COG capacitors available
- Low cross talk
- Custom design capability
- "B" .250" [6.35mm], "C" .350" [8.89mm] and "E" .325" [8.26mm] maximum seated height available, dependent on schematic
- 10k ECL terminators, Circuits E and M. 100k ECL terminators, Circuit A. Line terminator, Circuit T.



### **ELECTRICAL SPECIFICATIONS - CAPACITORS** Capacitance: 0.01µF for Circuits E, M and A.

33pF to 0.1µF for Circuit T.

Capacitance Tolerance:  $\pm 10\%$  (K),  $\pm 20\%$  (M). EIA Characteristics: COG and X7R. (COG capacitors

may be substituted for X7R capacitors.) Dissipation Factor: COG maximum .15%.

X7R maximum 2.5%.

Temperature Coefficient: COG ± 30PPM/°C. X7R ± 15%.

Dielectric Test: 2.5 x rated voltage.

Moisture Resistance: Meets requirements of

MIL-STD-202, Method 106. Operating Voltage: 50 volts at + 125°C.

Insulation Resistance: 1,000 ohm-farads or 100,000 Megohm, whichever is less at + 25°C at

rated voltage.

**ELECTRICAL SPECIFICATIONS - RESISTORS** Resistance Range: 10 ohm to 1 Megohm. **Resistance Tolerance:**  $\pm$  2% and  $\pm$  5%.

Temperature Coefficient: ±200PPM/°C.

TCR Tracking: ±100PPM/°C.

Operating Temperature Range: - 55°C to + 125°C.

Operating Voltage: 50 volt maximum.

Package Power Rating: 8 pins: .8 watt maximum. 9 pins: .9 watt maximum. 10 pins: 1.0 watt maximum at + 70°C. Power Per Resistor: 125mW maximum at + 70°C.

## **MATERIAL SPECIFICATIONS**

Flammability: UL 94V-0. Lead Material: Phosphorus-bronze, tin plated.

Body Material: Epoxy coated.

Solderability: Per MIL-STD-202, Method 208E.

#### DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters] NUMBER OF PINS MAXIMUM 4 pin .400 [10.16] .085 [2.160] Typ. .500 [12.70] 5 pin L .050 [1.27] Typ. Max .600 [15.24] 6 pin .135 [3.43] Max. 7 pin .700 [17.78] 8 pin .800 [20.32] н .900 [22.86] 9 pin Max. 1.000 [25.40] 10 pin Seating Plane 11 pin 1.100 [27.94] for .040 [1.016] Ø Hole .010 1.200 [30.48] 12 pin .020 [.254] .007 [.178] Ref. [.508] 13 pin 1.300 [33.02] .135 + .015 - .010 1.400 [35.56] [3.43 + .381 - .254] 14 pin .100 ± .005 [2.54 ± .127] .050 [1.27] Non-Cumulative 15 pin 1.500 [38.10] at Point of Earess 1.600 [40.64] 16 pin 17 pin 1.700 [43.18] H (Height) Maximum: B = .250" [6.35] (Circuit E and M) Pin #1 is extreme left-hand terminal on side with marking. C = .350" [8.89] (Circuit T) E = .325" [8.26] (Circuit A) 18 pin 1.800 [45.72]

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### MODEL CS206

ENVIRONMENTAL PERFORMANCE		
TEST	CONDITION	MAX. AR (Typical Test Lots)
Thermal Shock	Subject to 5 cycles from - 65°C to + 125°C.	$\pm$ 0.5% $\Delta$ R
Short Time Overload	2 1/2 x rated working voltage for 5 seconds at + 25°C.	$\pm$ 0.25% $\Delta R$
Moisture Resistance	Cycle from + $25^{\circ}$ C to + $65^{\circ}$ C to + $25^{\circ}$ C over 8 hours at 90 - 98% relative humidity, with 10% of rated power applied, for 20 cycles. Stop cycling after an even number of cycles and stabilize networks at high humidity for 1 to 4 hours. Condition networks at - $10^{\circ}$ C for 3 hours, then return to temperature cycling. On completion of cycling condition networks at + $25^{\circ}$ C at 50% r.h. for 22 to 24 hours.	$\pm 0.5\% \Delta R$
Resistance to Soldering Heat	Immerse pins in melted solder to the lead standoffs at + 350°C for 3 seconds maximum.	$\pm$ 0.25% $\Delta R$
Mechanical Shock	18 shocks of 100 G and 6 ms.	$\pm$ 0.25% $\Delta R$
Vibration	12 cycles varied logarithmically from 10Hz to 2000Hz to 10Hz over 20 minutes.	$\pm$ 0.25% $\Delta R$
Load Life	1000 hours at + 70°C, rated power applied 1 1/2 hours on, 1/2 hour off.	$\pm$ 1.0% $\Delta R$
Resistance to Solvents	Immerse and scrub samples with isopropyl alcohol, trichlorethylene and Freon TMC.	Marking remains legible
Solderability	Immerse leads in 60/40 tin-lead solder using R flux at + 245°C for 5 seconds maximum.	Minimum 95% solder coverage
Terminal Strength	Withstand 2.2 kg pull 1 minute.	$\pm$ 0.25% $\Delta R$
Case Insulation Resistance	100 V applied between case and terminals tied together.	IR = 10,000 Megohm minimum



### PART MARKING

- Pin #1 identification

- Part number (Abbreviated as space allows)
- DALE® or D
- Date code

### HOW TO ORDER

