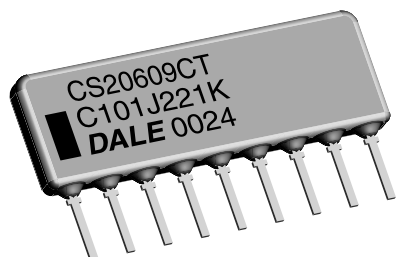


## Resistor/Capacitor Networks

### 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" 0.250" [6.35mm], "C" 0.350" [8.89mm] and "E" 0.325" [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.

**STANDARD ELECTRICAL SPECIFICATIONS**

MODEL	PROFILE	SCHEMATIC	RESISTOR CHARACTERISTICS					CAPACITOR CHARACTERISTICS	
			POWER RANGE	RESISTANCE TOLERANCE	RESISTANCE COEFF.	TEMP. TRACKING	T.C.R. RANGE	CAPACITANCE TOLERANCE	CAPACITANCE ±%
CS206	B M	E	0.125	10-1M	2, 5	200	100	0.01µF	10(K), 20(M)
CS206	C	T	0.125	10-1M	2, 5	200	100	33pF to 0.1µF	10(K), 20(M)
CS206	E	A	0.125	10-1M	2, 5	200	100	0.01µF	10(K), 20(M)

**TECHNICAL SPECIFICATIONS**

PARAMETER	UNIT	CS206
Operating Voltage (at + 25°C)	VAC	50 maximum
Dissipation Factor (maximum)	%	COG = 0.15; X7R = 2.5
Insulation Resistance (at + 25C /rated voltage)	MΩ	100,000
Dielectric Test	V	2.5 x rated voltage
Operating Temperature Range	°C	- 55 to + 125°C

**Capacitor Temperature Coefficient:**

COG maximum 0.15%, X7R maximum 2.5%

**Package Power Rating (maximum at 70°C):**

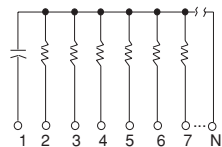
8 PINS = 0.80 Watt  
 9 PINS = 0.90 Watt  
 10 PINS = 1.00 Watt

**EIA Characteristics:**

COG and X7R (COG capacitors may be substituted for X7R capacitors).

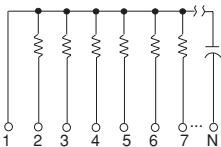
**SCHEMATICS** in inches [millimeters]

0.250" [6.35] High ("B" Profile)



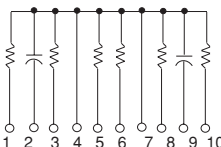
**Circuit E**

0.250" [6.35] High ("B" Profile)



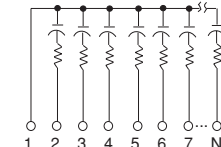
**Circuit M**

0.325" [8.26] High ("E" Profile)



**Circuit A**

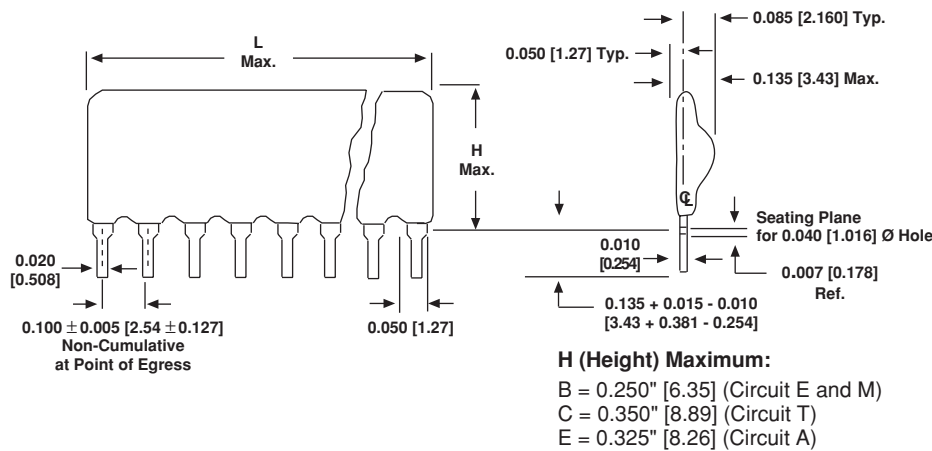
0.350" [8.89] High ("C" Profile)



**Circuit T**

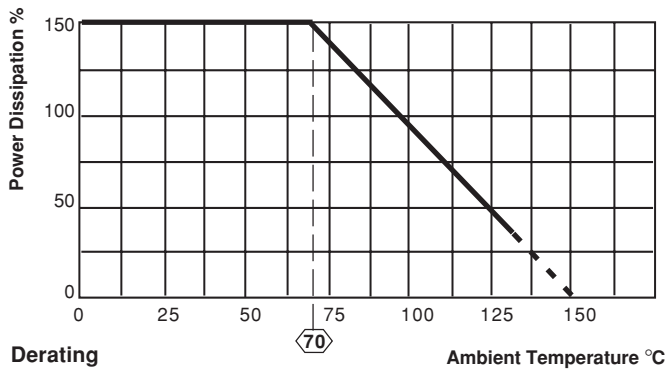
**ORDERING INFORMATION**

CS206 MODEL	08 NUMBER OF PINS	B PACKAGE CODE	E SCHEMATIC	C CAPACITOR CHARACTERISTIC	RRR RESISTOR CODE	G RESISTOR TOLERANCE	CCC CAPACITOR VALUE (pF)	K CAPACITOR TOLERANCE
	4 to 18 pins are available.	B = 0.250" [6.35mm] C = 0.350" [8.89mm] E = 0.325" [8.26mm]	E = 1 capacitor, pin #1 M = 1 capacitor, pin "N" A = 10 pin, 2 capacitors, 6 resistors T = Series R/C pairs, pins 2 thru N	C = COG X = X7R	First 2 digits are significant. Last digit specifies number of zeros to follow.	G = ± 2% J = ± 5%	First 2 digits are significant. Last digit specifies number of zeros to follow.	K = ± 10% M = ± 20%

**DIMENSIONS** in inches [millimeters]


NUMBER OF PINS	L MAXIMUM
4 pin	0.400 [10.16]
5 pin	0.500 [12.70]
6 pin	0.600 [15.24]
7 pin	0.700 [17.78]
8 pin	0.800 [20.32]
9 pin	0.900 [22.86]
10 pin	1.000 [25.40]
11 pin	1.100 [27.94]
12 pin	1.200 [30.48]
13 pin	1.300 [33.02]
14 pin	1.400 [35.56]
15 pin	1.500 [38.10]
16 pin	1.600 [40.64]
17 pin	1.700 [43.18]
18 pin	1.800 [45.72]

Pin #1 is extreme left-hand terminal on side with marking.



MATERIAL SPECIFICATIONS	
Flammability:	UL 94V-0.
Lead Material:	Phosphorus-bronze, tin plated.
Body Material:	Epoxy coated.
Solderability:	Per MIL-STD-202, Method 208E.
Part Marking:	Pin #1 identification, part number (abbreviated as space allows), DALE® or D, date code
Moisture Resistance:	Meets requirements of MIL-STD-202, Method 106.

PERFORMANCE		
TEST	CONDITION	MAX. $\Delta R$ (Typical Test Lots)
Thermal Shock	Subject to 5 cycles from $-65^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ .	$\pm 0.5\%$ $\Delta R$
Short Time Overload	2.5 x rated working voltage for 5 seconds at $+25^{\circ}\text{C}$ .	$\pm 0.25\%$ $\Delta R$
Moisture Resistance	Cycle from $+25^{\circ}\text{C}$ to $+65^{\circ}\text{C}$ to $+25^{\circ}\text{C}$ 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 $-10^{\circ}\text{C}$ for 3 hours, then return to temperature cycling. On completion of cycling condition networks at $+25^{\circ}\text{C}$ 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 $+350^{\circ}\text{C}$ for 3 seconds max.	$\pm 0.25\%$ $\Delta R$
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 $+70^{\circ}\text{C}$ , rated power applied 1.5 hours "ON", 0.5 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 $+245^{\circ}\text{C}$ 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