

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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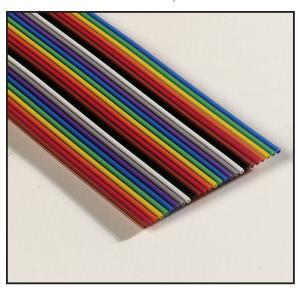




# 3M<sup>™</sup> Color Coded Flat Cable

.050" 28 AWG Stranded, PVC

3302 Series



- 28 AWG wire on .050 inch centers permits mass termination to a broad line of IDC connectors
- Stranded wire provides flexibility and extended product life
- Zippable for branching or discrete termination
- Color coded for wire identification
- RoHS Compliant. See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3Mconnectors.com for compliance information (RIA E1 & C1 apply)

Date Modified: May 1, 2012

TS-0123-C Sheet 1 of 2

## **Physical**

**Insulation:** 

Material: Polyvinyl Chloride (PVC)

Color: 10 Color Repeat, Clear Carrier

Marking:

Standard: None

Canadian Option: **%** AWM 20462 105C 300V VW1 3M NU C **%** AWM IA 80C 150V FT1 EU <50V

Conductors: 28 AWG, 7 × 36 AWG [ 7 × Ø 0.127 ] Tinned Stranded Copper

## **Electrical**

Voltage Rating: USA: 300V Canada: 150V EU: <50V

**Insulation Resistance:**  $> 1 \times 10^9 \,\Omega/10 \,\mathrm{ft.}$  [ 3 m ]

Characteristic Impedance: Unbalanced

 $105 \Omega$ 

**Capacitance:** 14.1 pF/ft [ 46.3 pF/m ] **Inductance:** 0.15 μH/ft [ 0.49 μH/m ]

**Propagation Delay:** 1.47 ns/ft [ 4.82 ns/m ]

**Velocity of Propagation:** 69%

Note: Unbalanced is measured between ground-signal-ground conductors.

### **Environmental**

**Temperature Rating:** USA: -20°C to +105°C Canada: -20°C to +80°C

Flammability Rating: USA: VW-1 Canada: FT1

UL File No.: E42769, Style No: 20462

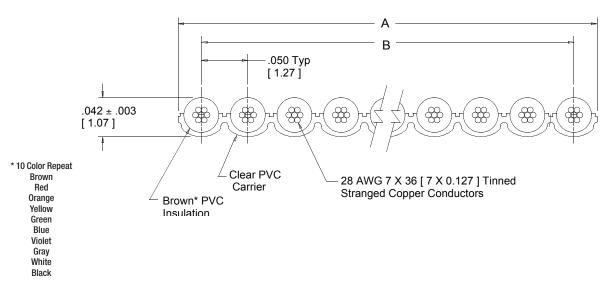


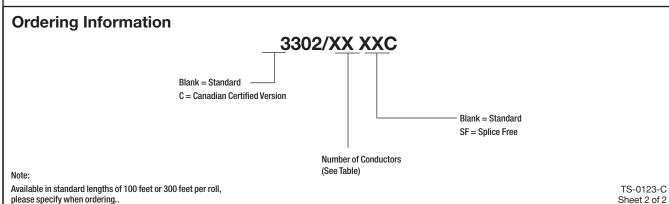
Inch [mm]

Tolerance Unless Noted				
	.0	.00	.000	
Inch	±.1	±.01	±.005	

[] Dimensions for Reference Only

Number of Conductors	3M Part Number	Dimension A	Dimension B
09	3302/09	0.450 ± .015 [ 11.43 ]	0.400 ± .010 [ 10.18 ]
10	3302/10	0.500 ± .015 [ 12.70 ]	0.450 ± .010 [ 11.43 ]
14	3302/14	0.700 ± .015 [ 17.78 ]	0.650 ± .010 [ 16.51 ]
15	3302/15	0.750 ± .015 [ 19.05 ]	0.700 ± .010 [ 17.78 ]
16	3302/16	0.800 ± .020 [ 20.32 ]	0.750 ± .015 [ 19.05 ]
18	3302/18	0.900 ± .020 [ 22.86 ]	0.850 ± .015 [ 21.59 ]
20	3302/20	1.000 ± .020 [ 25.40 ]	0.950 ± .015 [ 24.13 ]
24	3302/24	1.200 ± .020 [ 30.48 ]	1.150 ± .015 [ 29.21 ]
25	3302/25	1.250 ± .020 [ 31.75 ]	1.200 ± .015 [ 30.48 ]
26	3302/26	1.300 ± .020 [ 33.02 ]	1.250 ± .015 [ 31.75 ]
30	3302/30	1.500 ± .025 [ 38.10 ]	1.450 ± .020 [ 36.83 ]
34	3302/34	1.700 ± .025 [ 43.18 ]	1.650 ± .020 [ 41.91 ]
36	3302/36	1.800 ± .025 [ 45.72 ]	1.750 ± .020 [ 44.45 ]
37	3302/37	1.850 ± .025 [ 46.99 ]	1.800 ± .020 [ 45.72 ]
40	3302/40	2.000 ± .025 [ 50.80 ]	1.950 ± .020 [ 49.53 ]
50	3302/50	2.500 ± .025 [ 63.50 ]	2.450 ± .020 [ 62.23 ]
60	3302/60	3.000 ± .025 [ 76.20 ]	2.950 ± .020 [ 74.93 ]
64	3302/64	3.200 ± .025 [ 81.28 ]	3.150 ± .020 [ 80.01 ]





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