

Component Color Codes

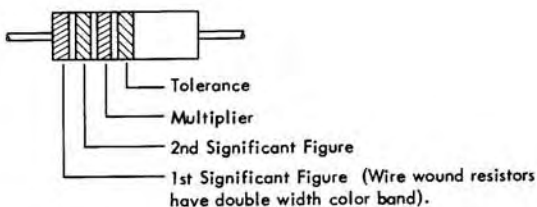
Color	First Ring - 1st Figure	Second Ring - 2nd Figure	Third Ring - Multiplier
Black	0	0	None
Brown	1	1	0
Red	2	2	00
Orange	3	3	000
Yellow	4	4	0,000
Green	5	5	00,000
Blue	6	6	000,000
Violet	7	7	0,000,000
Gray	8	8	00,000,000
White	9	9	000,000,000

NOTE: A fourth colored ring on resistors determines tolerance ratings as follows:

Gold = $\pm 5\%$
 Silver = $\pm 10\%$

Absence of a fourth colored ring indicates $\pm 20\%$ tolerance.

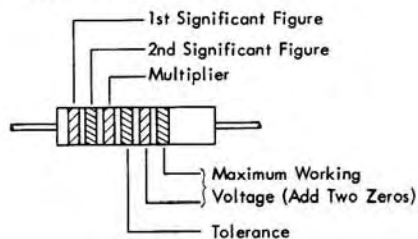
AXIAL LEAD RESISTOR



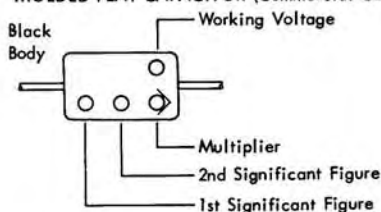
Resistor wattage rating is determined by physical size. However, resistors most commonly used at IBM are one-half watt and higher rated; resistors are progressively larger.

MOLDED PAPER TYPE CAPACITORS

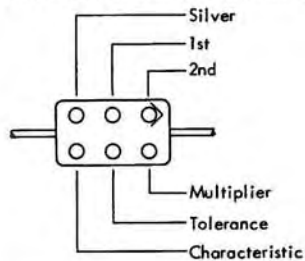
TUBULAR TYPE



MOLDED FLAT CAPACITOR (Commercial Code)



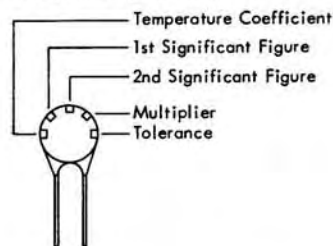
MOLDED FLAT CAPACITOR (JAN Code)



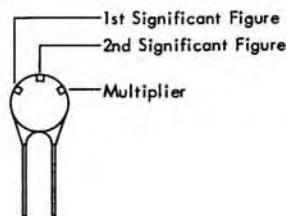
NOTE 1: Unless otherwise specified, the maximum working voltage rating of capacitors is obtained by multiplying the capacitor body color code value by 100.

NOTE 2: The tolerance rating of capacitors is determined by the color code value in percent. For example, Green equals $\pm 5\%$.

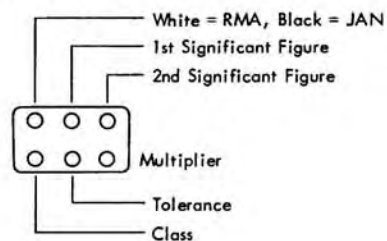
DISK TYPE CERAMIC CAPACITORS



FIVE DOT DISK TYPE CERAMIC CAPACITOR



MOLDED MICA TYPE CAPACITORS



BUTTON SILVER MICA CAPACITOR

