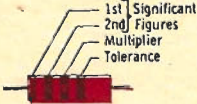


COLOR CODE CHARTS

COLOR BAND SYSTEM



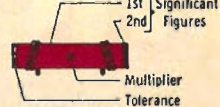
Resistors With Black Body Color Are Composition, Non-Insulated.
Resistors With Colored Bodies Are Composition, Insulated.
Wire-Wound Resistors Have The 1st Digit Color Band Double Width.

RESISTOR CODES (RESISTANCE GIVEN IN OHMS)

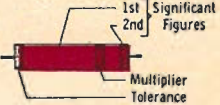
COLOR	DIGIT	MULTIPLIER	TOLERANCE
BLACK	0	1	±20%
BROWN	1	10	±1%
RED	2	100	±2%
ORANGE	3	1000	±3%*
YELLOW	4	10000	GMV*
GREEN	5	100000	±5% (EIA Alternate)
BLUE	6	1000000	±6%*
VIOLET	7	10000000	±12 1/2%*
GRAY	8	.01 (EIA Alternate)	±10%*
WHITE	9	.1 (EIA Alternate)	±10% (EIA Alternate)
GOLD		.1 (JAN and EIA Preferred)	±5% (JAN and EIA Preferred)
SILVER		.01 (JAN and EIA Preferred)	±10% (JAN and EIA Preferred)
NO COLOR			±20%

*GMV = guaranteed minimum value, or -0 - 100% tolerance.
±3, 6, 12 1/2, and 30% are ASA 90, 20, 10, and 5 step tolerances.

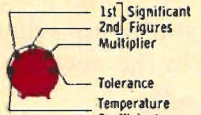
BODY-END-DOT SYSTEM



BODY-END BAND SYSTEM



DISC CERAMICS (5-DOT SYSTEM)



DISC CERAMICS (3-DOT SYSTEM)

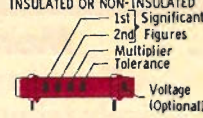


CERAMIC CAPACITOR CODES (CAPACITY GIVEN IN pF)

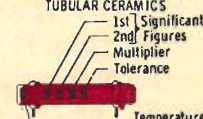
COLOR	DIGIT	MULTIPLIER	TOLERANCE		TEMPERATURE COEFFICIENT PPM/°C	EXTENDED RANGE TEMP. COEFF.	
			10 pF or LESS	10MMI		SIGNIFICANT FIGURE	MULTIPLIER
BLACK	0	1	±2.0 pF	±20%	0(NP0)	0.0	-1
BROWN	1	10	+0.1 pF	±1%	-33(N033)		-10
RED	2	100		±2%	-75(N075)	1.0	-100
ORANGE	3	1000		±2.5%	-150(N150)	1.5	-1000
YELLOW	4	10000			-220(N220)	2.2	-10000
GREEN	5		±0.5 pF	±5%	-330(N330)	3.3	+1
BLUE	6				-470(N470)	4.7	+10
VIOLET	7				-750(N750)	7.5	+100
GRAY	8	.01	±0.25 pF		-30(P030)		+1000
WHITE	9	.1	±1.0 pF	±10%	General Purpose Bypass & Coupling		+10000
SILVER					+100 (P100, JAN)		
GOLD							

Voltage ratings are standard 500 volts for some manufacturers, but 1000 volts for other companies.

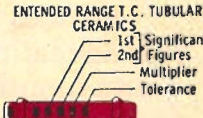
HIGH CAPACITY TUBULAR CERAMIC



TEMPERATURE COMPENSATING TUBULAR CERAMICS



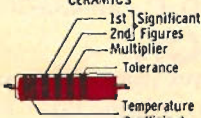
EXTENDED RANGE T.C. TUBULAR CERAMICS



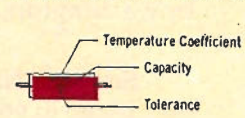
FEED-THRU CERAMICS



MOLDED-INSULATED AXIAL LEAD CERAMICS

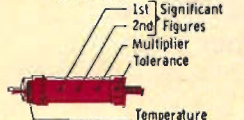


TYPOGRAPHICALLY MARKED CERAMICS

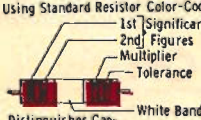


JAN LETTER	TOLERANCE
C	±0.2 pF
D	±0.5 pF
F	±1.0 pF
G	±2.0 pF
J	±1%
K	±2%
M	±5%
X	±10%
Z	±20%

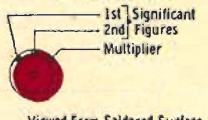
STAND-OFF CERAMICS



MOLDED CERAMICS



BUTTON CERAMICS



MOLDED MICA CAPACITOR CODES (Capacity Given In pF)

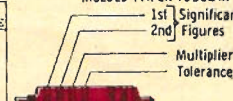
COLOR	DIGIT	MULTIPLIER	TOLERANCE	CLASS OR CHARACTERISTIC
BLACK	0	1	20%	A
BROWN	1	10	1%	B
RED	2	100	2%	C
ORANGE	3	1000	3%	D
YELLOW	4	10000		E
GREEN	5		5% (EIA)	F(JAN)
BLUE	6			G(JAN)
VIOLET	7			H(EIA)
GRAY	8			I(EIA)
WHITE	9			J(EIA)
GOLD		.1	5% (JAN)	
SILVER		.01	10%	

Class or characteristic denotes specifications of design involving Q factors, temperature coefficients, and production test requirements.
All axial lead mica capacitors have a voltage rating of 300, 500, or 1000 volts.
*or = 1.0 pF whichever is greater.

MOLDED PAPER CAPACITOR CODES (Capacity Given In pF)

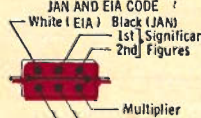
COLOR	DIGIT	MULTIPLIER	TOLERANCE
BLACK	0	1	20%
BROWN	1	10	
RED	2	100	
ORANGE	3	1000	
YELLOW	4	10000	
GREEN	5	100000	5%
BLUE	6	1000000	
VIOLET	7		
GRAY	8		
WHITE	9		10%
GOLD			5%
SILVER			10%
NO COLOR			20%

MOLDED PAPER TUBULAR



Indicates Outer Foil. May Be On Either End. May Also Be Indicated By Other Methods Such As Typographical Marking Or Black Stripe.

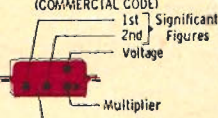
CURRENT STANDARD JAN AND EIA CODE



BUTTON SILVER MICA



MOLDED FLAT PAPER CAPACITORS (COMMERCIAL CODE)



MOLDED FLAT PAPER CAPACITORS (JAN CODE)

