

## CAPACITORS

### ALUMINUM ELECTROLYTIC CAPACITORS

ACHM - VRL	336	M	100	G	T	-P
TYPE	CAPACITANCE	TOLERANCE	VOLTAGE	CASE CODE	PACKAGING	
AC	V = Anti-Vibration	Expressed in pF.	M = 20%	Expressed	T = Tape & Reel	-P = RoHS Compliance
ACH	R = High Temperature Reflow	First two digits are		Volts (dc)		
ACHE	L = Long Life - 5000 hours	significant figures.		6.3		
ACHL		Third digit denotes		10		
ACHM		number of zeros.		16		
ACHV				25		
ACHZ				35		
ACU				50		
BCHL				63		
				100		

### SPECIALTY POLYMER CAPACITORS

SPC	106	M	04	T	-P
TYPE	CAPACITANCE	TOLERANCE	VOLTAGE	PACKAGING	
	Expressed in pF.	M = 20%	Expressed in	T = Tape & Reel	-P = RoHS Compliance
	First two digits are		Volts (dc)	B = Bulk	
	significant figures.		4 = 04		
	Third digit denotes		6.3 = 06		
	number of zeros.		8 = 08		
			12.5 = 12		
			16 = 16		

### TANTALUM CAPACITORS

TC	106	M	06	B	T	-P
TYPE	CAPACITANCE	TOLERANCE	VOLTAGE	CASE SIZE	PACKAGING	
TC = Standard	Rated capacitance in PF	M = 20%	2.5 = 02	A (3216)	T = Tape & Reel	-P = RoHS Compliance
TCLE = Low ESR	is represented by a	K = 10%	4 = 04	B (3528)	Blank = Bulk	
	three-digit number.		6 (6.3) = 06	C (6032)	-P = RoHS Compliance	
	First two digits significant.		10 = 10	D (7343)		
	Third digit indicates number of zeros.		16 = 16	E (7343H)		
			20 = 20			
			25 = 25			
			35 = 35			
			50 = 50			

### PLASTIC FILM CAPACITORS

PPC	104	J	16	T - P	G3	-P
TYPE	CAPACITANCE	TOLERANCE	VOLTAGE	PACKAGING	CASE CODE	
PPC	Expressed in pF.	G = ± 2%	16	T = Tape & Reel		-P = RoHS Compliance
PPCL	First two digits are	J = ± 5%	25	-P = RoHS Compliance		
PEC	significant figures.		50			
PECL	Third digit denotes		100			
	number of zeros.		160			

### CERAMIC CHIP CAPACITORS

CC	0805	CG	101	J	T	50	ER
SERIES	CASE SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	VOLTAGE	PACKAGING
CC=Standard	CG = NPO	First two	C = ± 0.25 pf	T = Tin Terminations	16	ER = Tape & Reel	
	XR = X7R	digits significant.	D = ± 0.5 pf	(RoHS Compliant)	25	PR = Paper Tape /	
	ZU = Z5U	Third digit indicates	F = ± 1%		50	Tape & Reel	
	YV = Y5V	number of zeros.	G = ± 2%		100		
	X5R = X5R		J = ± 5%		250		
			K = ± 10%		500		
			M = ± 20%		102		
			Z = +80%, -20%		152		
			P = +100, -0%		202		

## RESISTORS

### CARBON COMPOSITE RESISTORS

RM	3	13	A	XXX	K	-P
SERIES	DIAMETER (mm)	LENGTH (mm)	STANDARD	RESISTANCE	TOLERANCE	
RM				1st two digits significant	J = ±5%	-P = RoHS Compliance
RO				3rd is multiplier	K = ±10%	
					M = ±20%	

### FILM CHIP RESISTORS

RC	315	C	103	J	T
SERIES	CASE CODE	TERMINATION	RESISTANCE	TOLERANCE	PACKAGING
RC - Thick Film	110 - 0402 (1/16W)	C = Sn/Pb	* 5% - 3 Digits	D = .5%	T = Tape & Reel
RT - Thin Film	115 - 0603 (1/10W)	T = Sn (Tin)	1st two significant	F = 1%	
RL - Low Ohmic	210 - 0805 (1/8W)	RoHS Compliance	3rd multiplier (10*)	G = 2%	
	315 - 1206 (1/4W)		* 1% - 4 Digits	J = 5%	
	350 - 1210 (1/3W)		1st three significant		
	500 - 2010 (3/4W)		4th multiplier (10*)		
	1000 - 2512 (1W)		OR0 = Jumper "0" ohm		

### METAL STRIP RESISTORS

RWN	5020	103	J	T	-P
SERIES	TYPE	RESISTANCE	TOLERANCE	PACKAGING	
	5020 - Power - Low Ohm.	Use "R" for decimal	F = 1%	T = Tape & Reel	-P = RoHS Compliance
	5021 - Power - Wirewound	5% - 3 Digits	J = 5%		
	5022 - Power Metal Film	1st two significant			
		3rd multiplier (10*)			
		1% - 4 Digits			
		1st three significant			
		4th multiplier (10*)			

### NETWORKS

YC	16	4	L	J	F	104	T	-P
SERIES	WIDTH/ WATTAGE	NUMBER OF RESISTORS	CIRCUIT TYPE	TOLERANCE	TEMPERATURE COEFFICIENT	RESISTANCE	PACKAGING	
YC16 - 8P/4R	15=1.6(1/32W)	2=2 Resistors	L=L Type	F=±1%	A=±5ppm/°C	Example	T = Tape & Reel	-P = RoHS Compliance
YC15 - 10P/8R	16=1.6(1/16W)	4=4 Resistors	T=T Type	G=±2%	B=±10ppm/°C	100 = 10Ω		
YC35 - 10P/8R	17=1.6(1/32W)	8=8 Resistors	--Ignore	J=±5%	C=±15ppm/°C	101 = 100Ω		
YC17 - 9P/8R	19=1.6(1/32W)	9=9 Resistors			D=±25ppm/°C	102 = 1,000Ω		
YC19 - 10P/9R	20=2.0(1/10W)	A=10 Resistors			E=±50ppm/°C	103 = 10,000Ω		
	32=3.2(1/8W)	C=12 Resistors			F=±100ppm/°C	104 = 100,000Ω		
	35=3.2(1/16W)				G=±200ppm/°C			
					--Ignore			

## INDUCTORS

### MULTILAYER CHIP BEADS

MLB	160808	0120	A	N2	T	-P
ITEM CODE	DIMENSION	IMPEDANCE/Ω	TYPE	DESIGN NO.	PACKAGING	
	160808 = 1.6 x .8 x .8		A		T = Tape & Reel	-P = RoHS Compliance
	201209 = 2 x 1.2 x .9		B			
	321611 = 3.2 x 1.6 x 1.1		P			
	321616 = 3.2 x 1.6 x 1.6		R			
	322513 = 3.2 x 2.5 x 1.3		L			
	451616 = 4.5 x 1.6 x 1.6		M			
	453215 = 4.5 x 3.2 x 1.5		H			

### WOUND CHIP BEADS

SMB	403025	T	-P
ITEM CODE	DIMENSION	PACKAGING	
	302520	T = Tape & Reel	-P = RoHS Compliance
	403025		
	853025		

### MULTILAYER CHIP INDUCTORS

MLI	160808	47N	K	T	-P
ITEM CODE	DIMENSION	INDUCTANCE/μH	TOLERANCE	PACKAGING	
	160808 = 1.6 x .8 x .8	Use "R" for decimal	J = ±5%	T = Tape & Reel	-P = RoHS Compliance
	201209 = 2 x 1.2 x .9		K = ±10%		
	321611 = 3.2 x 1.6 x 1.1		M = ±20%		

### WOUND CHIP INDUCTORS

SMI	453232	R10	M	T	-P
ITEM CODE	DIMENSION	INDUCTANCE/μH	TOLERANCE	PACKAGING	
	252018	Use "R" or "N" for decimal	J = ±5%	T = Tape & Reel	-P = RoHS Compliance
	322522		K = ±10%		
	453232		M = ±20%		

WCI	453232	T	1R0	K	-P
SERIES	DIMENSION	PACKAGING	INDUCTANCE/μH	TOLERANCE	
	453232	T = Tape & Reel	Use "R" for decimal	K = ±10%	-P = RoHS Compliance
	565050			M = ±20%	

### HIGH FREQUENCY CHIP INDUCTOR - MULTILAYER

HFI	160808	47N	J	T	-P
ITEM CODE	DIMENSION	INDUCTANCE/nH	TOLERANCE	PACKAGING	
	160808 = 1.6 x .8 x .8	Use "N" for decimal	S = ±0.3nH	T = Tape & Reel	-P = RoHS Compliance
	201209 = 2 x 1.2 x .9	1N5 = 1.5nH	J = ±5%		
		10N = 10nH	K = ±10%		
		R10 = 100nH	M = ±20%		

### HIGH FREQUENCY CHIP INDUCTOR - WOUND

HFC	1608	2N2	J	T	-P
ITEM CODE	DIMENSION	INDUCTANCE/nH	TOLERANCE	PACKAGING	
	1608	Use "N" for decimal	S = ±0.3nH	T = Tape & Reel	-P = RoHS Compliance
	2012		J = ±5%		
	2520		K = ±10%		
	3225		M = ±20%		