#### **EVALUATION ENGINEERING**

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COMPILED BY PRODUCT RELIABILITY INFORMATION NO. 106 DATE 6-3-69

### SUBMINIATURE RESISTORS

MEPCO has introduced a small Tinyclip metal glaze resistor. The  $50 \times 50 \times 10$  mils size makes them adaptable to hybrid assemblies, probes or subassemblies. Their use in the repair or modification of hybrid devices is also feasible.

The chip is mounted by soldering to substrates or lead bonding to terminal pads by ultrasonic or thermo-compression methods. The resistance range is from 50 ohms to 100K in 10% EIA values. Resistance tolerances to 1% with special resistance values available on request. The rating is 1/20 watts at  $125^{\circ}$ C derated to 0 watts at  $150^{\circ}$ C. Temperature coefficient is 0 ±200 P/M/°C from -65°C to  $150^{\circ}$ C.

The resistors are available in kits of two sizes, packaged in individual compartments and marked according to resistance value. The large kit has 400 chips, 10 each of 40 values from 56 ohms to 100K, priced at \$149.50. The smaller kit has 4 pieces of each value priced at \$49.50. (On order)

CTS MICROELECTRONICS also has cermet chip resistors. The two sizes are  $75 \times 50 \times 30$  mils and  $90 \times 50 \times 30$  mils. These chip resistors are mounted by epoxy or by soldering the terminals to conductors or pads. The terminals can be gold, platinum gold, silver, or solder tinned.

The resistance range is from 200 ohms to 350K in 10% EIA values. Special values and 1% tolerances are available. The dissipation rating is from 1/8 watts at  $125^{\circ}$ C to 0 at  $175^{\circ}$ C. The temperature coefficient is 0  $\pm 300$  P/M/°C. Price of a single unit 1% tolerance is \$1.00. On 1000 units the price is 29 cents. Large quantities at 10% are 13.5 cents each.

CTS also has a CERADOT cermet pellet resistor. It comes in four sizes, from 50 mils in diameter and 30 mils long to 100 mils diameter by 62 mils long. These parts can be mounted with the platinum gold, gold, or soldered terminations. These are also available with flat or round leads, parallel or opposed.

Values range from 15 ohms to 200K in 10% standard values. Tolerances to 1% and special sizes are available. The rating is .075 watts  $125^{\circ}\text{C}$  on the smallest size derated to 0 at  $175^{\circ}\text{C}$ . The temperature coefficient is 0  $\pm 300$  P/M/°C. Prices on large quantities of 10% parts are about 50 cents each with a 25 cent adder for leads. Small quantities are from \$1.50 to \$3.00 each.

On the reverse side of this issue is a list of currently purchased CTS pellet resistors.

Currently purchased CTS pellet resistors:

VALUE	TOL (%)	$\begin{array}{ccc} \text{SIZE} \\ \text{D} & \text{x} & \text{L} \end{array}$	LEADS	TEK P/N
15Ω 27Ω 75Ω 200Ω 500Ω 1K 2K	5 10 5 10 10 10	.100 x .050 .100 x .100 .050 x .068 .050 x .100 .050 x .100 .050 x .100	Leadless Parallel Radial Parallel Parallel Parallel Parallel	307-0092-00 307-0218-00 307-0150-00 307-0219-00 307-0118-00 307-0119-00 307-0117-00
120K	10	.050 x .100	Radial	307-0100-00

For further information, call Ext 7268.

-Ray Powell

# COMPONENT NEWS INDEX

Attached to this copy of *Component News* is an updated index listing most of the articles appearing in *Component News* issue 1 through 100.

We have deleted from the index some articles which appeared in the early issues since these articles were as much as five years old and were no longer pertinent.

-Charlie Chartrey

#### COMPONENT NEWS INDEX

This index covers Issues 1 thru 100. It is divided into three catagories.

- 1. Application Notes, Guidelines, and Procedures
- 2. Codes; Identification, Tolerance, Price, Etc.
- 3. Component Information

We have a limited supply of back issues available. If you need copies for your file, call Cyndi at Ext 272.

# APPLICATION NOTES, GUIDELINES, AND PROCEDURES

Capacitance Measurements		Ferrites for Freq. Stable LF Osc. 11
Capacitance Bridge Frequency Characteristics	18 80	Integrated Circuits
Capacitors		Consideration for New Appl. Digital 66, 74, 79
Electrolytic Circuit Board Application List Available Operating Temperature Low Inductance Elect. Variable New Applications Tantalum Operations at Low Fre	96	Linear 66, 74 Course Information 32 IGDETs & MOS Arrays 34 Linear Circuit Appl. Booklet 37 Microelectronic Circuits 5 Packages 66 Part No. Category 24
		Labels, Adhesive 93
Connectors - New Look	14	Metal Casting, Non-Ferrous 26
Check the Specs	2	Nuvistor Envelope Temperature 40
Component Evaluation Personnel Assignment	83, 84	Photometers 75
CRT Grid Bias	41	Project Priorities 44
Diodes		Power Supply Current Limiting Res. 5
List Comments Noise Problem Size Difference 152-0066 Small Size (DO-35) Tunnel Derating Factor Limitations	45 19 14 65 30 28	Purchasing  Attenuator, General Radio 12 Check the Specs 2 Make-or-Buy 22 New Purchased Parts 15 Semiconductors 20 Wire - Lead Time 23
Zener Noise Oven	19 25	Resistors
Power Rating 5% to replace 10% & 15%	9 34	Carbon Film 40 Composition 1/8 Watt 14
Etched Circuits		Derating 6, 23 Drift with Age 10
Cross Reference Engineering Guide Marking Problem Material Standoff	19 10 62 77 12	Metal Film Core Size 17 Standard Values, 1% & 5% 60 Technical Info Available 10 Thermal 60
Fan Motor Safety Test	75	

Film Resistor Labeling   49
Correction
New Issue
Evaluation Procedures 64  Silk Screening Leakage Problem 62  Sockets  Dual 84 Bonding Miniature 86 Knob, Plastic 13 RTV Silicones 22  Switches  Lubrication 25, 89 Reed 9, 36 BNC Input Conn. Dim. Req. 91 Clamps 72  Thermistors 47, 60 Crimp Conn for .025'' Sq. Pin 95 Finish, Bright Alloy 14  Thermoplastics 70 Flat Cable Systems 67 GR to Conhex Adapters 18  Transistors CR Attenuators 12  Device Peep in Active Device Cr. 64 Multi-Pin 91
COMPONENT INFORMATION   Adapter (See Cables)
Adapter (See Cables)   Sockets
Dual 84 Bonding Miniature 86 Knob, Plastic 13 RTV Silicones 22  Switches  Lubrication 25, 89 Reed 9, 36 BNC Input Conn. Dim. Req. 91 Clamps 72  Thermistors 47, 60 Crimp Conn for .025" Sq. Pin 95 Finish, Bright Alloy 14  Thermoplastics 70 Flat Cable Systems 67 GR to Conhex Adapters 18  Transistors CR Attenuators 12  Device Peep in Active Device Gr 64 Multi-Pin 91
Miniature 86 Knob, Plastic 13 RTV Silicones 22  Switches  Lubrication 25, 89 Cables, Connectors & Adapters Reed 9, 36 BNC Input Conn. Dim. Req. 91 Clamps 72  Thermistors 47, 60 Crimp Conn for .025" Sq. Pin 95 Finish, Bright Alloy 14  Thermoplastics 70 Flat Cable Systems 67 GR to Conhex Adapters 18  Transistors CR Attenuators 12  Device Peep in Active Device Gr. 64 Multi-Pin 91
Miniature         86         Knob, Plastic RTV Silicones         13 RTV Silicones           Switches         22           Lubrication Reed         25, 89 Pase in Active Perice of All Prints         Cables, Connectors & Adapters           BNC Input Conn. Dim. Req. 91 Clamps         91 Clamps           Crimp Conn for .025" Sq. Pin Finish, Bright Alloy         14 Flat Cable Systems           Flat Cable Systems         67 GR to Conhex Adapters         18 CR Attenuators           Multi-Pin         91 Multi-Pin
RTV Silicones   22
Lubrication 25, 89 Reed 9, 36 Reed 9, 36 RNC Input Conn. Dim. Req. 91 Clamps 72 Thermistors 47, 60 Thermoplastics 70 Thermoplastics 70 Transistors 67 GR to Conhex Adapters 18 Transistors 12 Device Pesp, in Active Device Gr 64  Reed 9, 36 RNC Input Conn. Dim. Req. 91 Clamps 72 Crimp Conn for .025" Sq. Pin 95 Finish, Bright Alloy 14 Flat Cable Systems 67 GR to Conhex Adapters 18 Multi-Pin 91
Reed 9, 36 BNC Input Conn. Dim. Req. 91 Clamps 72 Thermistors 47, 60 Crimp Conn for .025" Sq. Pin 95 Finish, Bright Alloy 14 Thermoplastics 70 Flat Cable Systems 67 GR to Conhex Adapters 18 Transistors CR Attenuators 12 Device Pesp in Active Device Cr. 64 Multi-Pin 91
Thermistors         47, 60         Clamps         72           Thermistors         47, 60         Crimp Conn for .025" Sq. Pin 95           Finish, Bright Alloy         14           Thermoplastics         70         Flat Cable Systems 67           GR to Conhex Adapters         18           Transistors         CR Attenuators 12           Device Pesp in Active Device Cr 64         Multi-Pin 91
Thermistors 47, 60 Crimp Conn for .025" Sq. Pin 95 Finish, Bright Alloy 14 Thermoplastics 70 Flat Cable Systems 67 GR to Conhex Adapters 18 Transistors CR Attenuators 12 Device Pesp in Active Device Cr 64  Multi-Pin 91
Finish, Bright Alloy 14  Thermoplastics 70 Flat Cable Systems 67 GR to Conhex Adapters 18  Transistors CR Attenuators 12  Device Pesp in Active Device Gr 64 Multi-Pin 91
Thermoplastics 70 Flat Cable Systems 67 GR to Conhex Adapters 18 Transistors CR Attenuators 12 Device Pesp in Active Device Gr 64 Multi-Pin 91
GR to Conhex Adapters 18 Transistors CR Attenuators 12 Device Pesp in Active Device Gr 64 Multi-Pin 91
Device Pesp in Active Device Cr. 64 Multi-Pin 91
HANTCA VACH IN ACTIVA HANTCA LIP DA
E-B Breakdown 32, 35 Square Din 6
Field Effect  Basing  39, 45, 78, 86  Square Fin  500 Cable
Definition of Symbols 15 Cross linked PVC /5
Heat Sink Damage 9 Micro miniature 93
List Available 100 Semirigid
Plastic (MOTOROLA) 29, 38, 48, 99 Capacitors
Power Supervisors Mounting 50 By Pass, High Speed 74
Progress in Power 65 Ceramic
Problems Disc 1
Leakage 151-0188, -0199 1, 27, 28 High Voltage 10
Linearity 151-0175 36 Pellet 18 r <sub>b</sub> 'C <sub>a</sub> Vs. Switching Speeds 62 Tubular Replacement 32
r <sub>b</sub> 'C <sub>c</sub> Vs. Switching Speeds 62 Tubular Replacement 32 Tubular Feedthrough 20
Vacuum Tube Dust Covers 5
Envelope Temperature 38, 40 Electrolytic
Silicon Diode Added in Series 16 Aluminium 20
List 78 Line Filter 281-0559
Low 7 Floot Variable 100
CODES; IDENTIFICATION, TOLERANCE, PRICE, ETC. Parylene (KEMET) 90
Codes Tantalum (SPRAGUE) 90
Metalized Pollycarbonate 8/
Diode Trimmers Color 33 Air Dielectric
Tunnel 4 Panel Mounting 2
Capacitors Type 'T'
Identification 21, 93 Type "V" 7
Tolerance 69 Ceramic Trimmers Subminiature 51
Air 43 Extended Range 90, 93
Ceramic 45
Price 40 Circuit Boards, Polypheny lene Oxide 77

Diale Thomas counting 02 Fuse Error		
Fuse Holder (For Span		58 69 70
Diodes Fuse Holder (1EX Made Small Fuses	ic crrp)	57
Bilateral Clipper 92 Subminiature Fuses &	Holders	56
Diode Oven 25		
DO-35 Size 80 Instrument Pool Germanium 3		
High Conductance High Speed 59 Catalogue of Instrs.		33
Interchangeability, 152-0066 14 Additions to List	37,	42
Injection Lasing 48 New List Available Rectifiers Frequency Counter	<b>;</b>	99 35
Infrared Dadiction M	leas Devices	66
Epoxy Bride 1 Missing Instruments 1 High Current Full Wave Bridge 59 Missing Instruments		47
High Voltage 59 Peak to Peak Voltage		81
Silicon, Controlled 2 RF Voltage Measurement	ents	74
Replacements 152-0047 13 Integrated Circuits		
152 0047		
152-0066 14 Amplifiers 152-0141 4, 80 Differential. Temp	Controlled	70
152-0141 4, 80 Differential, Temp 152-0154 52 Operational	78 <b>,</b> 79 <b>,</b>	
152-0173 16 Digital		
	66, 74, 78,	
Signal Diodes 51 Packages Tunnel Diodes Power Supply Regulate		66 85
Reliability Problem 152-0154 52 Prod. Problems, 151-		
Stripline (RCA) 30 Sockets	0001, 0011	19
TD250 (GE) 1		
Wiskerless (MOTOROLA) 18 Jacks (SEALECTRO Replace Zener Diodes	icement)	70
List 96 Lamps 5V Subminiature		98
Oven 25		
Price 13 Meters, Panel		56
5% 34 400 mW & 1W 1 <i>Miscelleneous</i>		
Denta Povos Mankings	. 1	15
Fans Parts Boxes Markings Photochopper	, 1,	50
Motors Tested to Safety Stds. 75 Project Priority Ass	ignments	44
Plastic Blades 72 Pozidrive Screws Sentinel Fans 16 VOM Electrical Hazar	. 1	32
Sentinel Fans 16 VOM Electrical Hazar	ra	79
Ferrites 11, 20, 52 Reed Switches (See Swi	(tches)	
Field Effect Transistors Resistors		
Dual N Channel 31, 39, 47 Beckman		
High Voltage 82 Cermet Trimmer Low Noise High GM 82 Model 62P for EC B	S 1 -	9
Low Noise High GM 82 Model 62P for EC B Epoxy, Low Cost 46 Bourns Knobpot	soards	18 5
Junction, 2N4416 42 Brake for Pot Shaft		69
Power MOS P 82 Clarostat		
Silicon N Channel 15 Model 44 and 53 Switching, (Amelco) 40 Model 63M		24
Switching, (Amelco) 40 Model 63M 151-1001 thru 151-1009 39 Composition, 1/8W		16 14
151-1010 thru 151-1013 47 Potentiometer, 10 Tu	ırn WW	5
151-1014 thru 151-1016 46 Quadratron		10
151-1017 thru 151-1020 57 Replacements 308-009	99, -0100	35
151-1021 thru 151-1024 71 Sensistor Kit 151-1025 thru 151-1028 82 Standard Values 1% a	and 5%	42 60
	· · · · ·	

Resistors (Cont'd)			Spec Changes	
Timina		10	151-0158	34
Timing Trimmer Pots			151-0190	88
		98	<b>151-0210</b> , -0241, -0239	88
Winding Machine Available		12		6
a 1 .				'6
Sockets			,	•
Integrated Circuit			Tubes	
6 and 8 lead		19		
10 lead		58		35
Miniature 136-0252		86	Replacements 6AU6 & 12AU6 2	25
Six Lead Active Device		62	12H67	9
Subminiature		49	5642 (SYLVANIA) 1	9
Transistor		49	7119	.6
TO-5 and In-line		1	8416	9
		1		
TO-5 with 6 lead		62		
TO-66		53		
Switches				
Swi i ches				
Lubricants 2.	5,	89		
Reed	•			
Ham1in		3		
Hathaway		61		
Thermoswitches		92		
Transistors				
Cover, Insulating		~-		
TO-3		31		
TO-5 Kynar		30		
TO-66		17		
FET's — See Field Effect Head.				
NPN				
Cascade Amp 1GHz		71		
Darlington		71		
Dual		63		
Monolithic 54, 70	6,	84		
Silicon		84		
Fast Switching 1GHz		84		
High Voltage/High Power				
150V		34		
160V 117W		30		
300V 100W		73		
Low Cost		63		
NPN/PNP				
Complimentary Pair		13		
Dual		73		
PNP				
Dual 7:	5,	84		
High Voltage	-	54		
Plastic				
Claim to Fame		24		
Fairchild Environmental		48		
Low Cost		50		
Replacements				
151-0004,-005,-0026, 6-0058		30		
151-0032		12		
151-0086,-0097		11		
151-0153,-0154,6-0155		11		
151-0225,-0236		76		
• • •		. •		