



ELECTRONICS, INC.

BI-POLAR TRANSISTORS

Cat. No.	Material	Application	Case Style	Maximum Breakdown Voltage (Volts)		Maximum Collector Current (Amps) I _c	Maximum Collector Dissipation (Watts) P _d	Typical Forward Current Gain h _{FE}	Typical Frequency (MHz) f _r	Net Price
				BV _{CEO}	BV _{CBO}					
NPN										
NTE16	Si	Gen. Purpose Small Signal Amp, Low Noise	ATR	50	40	0.1	0.3	270 Min	180	\$1.32
NTE382	Si	Audio Freq Driver	R245	120	100	1	0.9	200	140	3.14
♣ NTE2408**	Si	Low Noise, Driver, Output	SOT-23	80	65	0.1	0.2	125 Min	300	2.47
NTE2426**	Si	Darlington Sw	SOT-89	90	80(CER)	0.5	1	2000 Min	—	2.66
NTE101	Ge	OSC, Mixer for AM Radio, Medium Speed Sw	TO5	25	20(CER)	0.3	0.15	40@455kHz	5	6.80
NTE243	Si	Darlington Power Amp	TO3	80	80	8	150	2500	—	7.93
NTE247	Si	Darlington Power Amp	TO3	100	100	12	150	3000	—	8.32
NTE251	Si	Darlington Power Amp	TO3	100	100	20	160	2500	—	14.16
NTE130	Si	Power Amp, Gen Purpose	TO3	100	70(CER)	15	115	20 Min	2.5 Min	3.81
NTE180	Si	High Power Audio Amp	TO3	100	100(CER)	30	200	25 Min	2 Min	11.21
NTE280	Si	Audio Power Amp	TO3	150	150	12	100	70	5/6	8.33
NTE284	Si	Audio Amp Output	TO3	180	180	16	150	70	6	18.65
NTE87	Si	High Power AF, Switch	TO3	250	250(CEX)	10	200	20 Min	—	12.17
NTE94	Si	High Voltage Switch	TO3	300	300	5	100	40	2.5 Min	12.53
NTE388	So	Power Amp, Gen Purpose	TO3	400	250	16	250	30/35	4 Min	15.13
NTE162	Si	TV Vert Deflection	TO3	500	300	10 Peak	100	20 Min	—	12.53
NTE385	Si	Audio Power Amp, Switch	TO3	550	350	10	150	17	—	16.05
NTE98	Si	HV Darlington Pwr Amp, Fast Sw	TO3	700	500	20	175	40 Min	—	33.12
NTE283	Si	Horiz Output, Switch	TO3	800	325	10	100	10 Min	6	14.86
NTE386	Si	Audio Power Amp, Switch	TO3	800	500	20	175	20	—	37.21
NTE53	Si	High Vltg, High Speed, Sw	TO3	850	400	15	175	25	6 Min	17.00
NTE2319	Si	High Vltg, High Speed, Sw	TO3	850(CES)	450	15 Cont	175	5 Min	—	12.51
NTE89	Si	Horiz Output w/ Internal Damper Diode	TO3	1500	600	7	50	8 Min	—	14.83
NTE165	Si	TV Horizontal Output	TO3	1500	1400(CES)	6	50	8 Min	3	10.00
NTE238	Si	TV Horizontal Output	TO3	1500	1500(CEX)	8	100	8	—	10.96
NTE2308	Si	High Voltage/Current Switch	TO3P	500	400	12	100*	15 Min	20	9.30
♣ NTE2302	Si	High Voltage Output w/Internal Damper Diode	TO3P	1500	800	5	120*	8 Min	3	9.30
NTE36	Si	Audio Power Amp	TO3P	160	140	12	100	100	15	8.82
♣ NTE2324	Si	High Speed Switch	TO3PML	1500	800	8	70*	8 Min	—	13.83
NTE2331	Si	TV Horiz Deflection w/ Damper Diode	TO3PML	1500	800	6	60	8 Min	—	11.16
NTE123A	Si	General Purpose Amp	TO18	75/60	40/60	0.8/0.6	0.4	200/100 Min	300/200 Min	1.45
NTE311	Si	Driver, VHF/UHF Osc	TO39	55	30	0.4	5	25 Min	800 Min	4.58
NTE123	Si	Amp, Gen Purpose	TO39	75	40	0.8	0.8	200	300 Min	1.19
NTE128	Si	Amp, Gen Purpose	TO39	120/90	80	1	1	90 Min	100/150 Min	2.15
NTE396	Si	Power Amp & High Speed Sw	TO39	450/350	350/300	1	10*1	40 Min/30 Min	15 Min	3.79
NTE175	Si	Linear & Audio Power Amp	TO66	500	500(CER)	3	40	60	15	5.81
NTE161	Si	VHF/UHF Amp, Mixer/OSC	TO72	45	45(CES)	0.05	0.2	60	800	3.21
NTE107	Si	UHF OSC for Tuner, High Freq	TO92	30	12	0.05	0.2	75	1000	2.34
NTE108	Si	RF-IF Amp and OSC	TO92	30	15	0.05	0.625	20 Min	800	2.07
NTE289	Si	Audio Power Amp/Sw	TO92	35	30	0.8	0.6	120 Min	100/140	2.66
NTE11	Si	High Current Amp	TO02	40/27	20/18	5	0.75	230 Min/180 Min	150/120	2.25
NTE172A	Si	Darlington Pre-Amp	TO92	40	40	0.3	0.4	7000 Min	60 Min	.99
NTE47	Si	High Gain, Low Noise Amp	TO92	45	45	0.2	0.625	1150	160	1.22
NTE199	Si	Amp, Gen Purpose	TO92	70/120	50/120	0.1	0.36/0.3	400 Min/350 Min	90 Min/100	1.05
♣ NTE85	Si	Amp, Gen Purp Switch	TO92	70	70(CES)	0.4	0.625	120 Min	200 Min	1.29
NTE123AP	Si	Amp, Gen Purpose	TO92	75/80	40/80	0.6/1	0.625	200/180	300 Min/200	1.19

* T_c = +25°C

** Denotes Surface Mount Types

Cat. No.	Material	Application	Case Style	Maximum Breakdown Voltage (Volts)		Maximum Collector Current (Amps) I _c	Maximum Collector Dissipation (Watts) P _d	Typical Forward Current Gain h _{FE}	Typical Frequency (MHz) f _r	Net Price
				BV _{CBO}	BV _{CEO}					
NTE46	Si	Darlington, Gen Purp Amp, Preamp, Driver	TO92	100	100	0.5	0.625	10000 Min	200	\$2.32
NTE289A	Si	Audio Power Amp	TO92	100	80	0.5	0.6	100 Min	120	1.87
NTE194	Si	Audio Power Amp	TO92	180	160	0.6	0.31	100	100 Min	.92
NTE287	Si	High Vltg, Gen Purp Amp	TO92	300	300	0.5	0.625	40 Min	50 Min	1.32
NTE48	Si	Darlington, High Current, Gen Purp Amp	Giant TO92	60	50(CES)	1	2.5*	25000 Min	100 Min	1.85
NTE293	Si	Audio Amp & Driver	Giant TO92	60	50	1	1	120 Min	200	2.47
NTE297	Si	Audio Amp Driver	Giant TO92	80	80	0.5	0.75	130 Min	120	6.48
NTE399	Si	High Vltg Video Amp	Giant TO92	300	300	0.1	0.9	100 Min	50 Min	3.92
NTE2355	Si	Digital w/ 2 Built-In Bias 10k Resistors	TO92 Type	50	50	0.1	0.3	50 Min	250	1.67
NTE184	Si	Audio Power Amp, Sw	TO126	80	80	4	40	25 Min	2 Min	2.49
NTE373	Si	Audio Amp, Driver	TO126	180	160	1.5	20	190	140	2.61
NTE157	Si	Audio Power Amp, Converter	TO126	325	300	0.5	20	90	10 Min	2.62
NTE265	Si	Darlington Power Amp/Sw	TO202	50	50	0.5	6.25	10000 Min	—	5.93
NTE186	Si	General Purpose Output & Driver Stages of Audio Amps	TO202	70	60	3	12.5	100 Min	50	2.91
NTE171	Si	Audio, Diveo Amp	TO202	300	300	0.1	6.25	30 Min	75	2.81
NTE190	Si	High Vltg Amp	TO202N	180	180	1	10	40 Min	100	5.76
NTE152	Si	Amp, Gen Purpose	TO220N	60	60	5	50	60	10	2.77
NTE235	Si	Final RF Pwr Amp	TO220	65	65(CER)	3 Pulse	12	80	300	12.44
NTE241	Si	Amp, Gen Purpose	TO220	80	80	4	60	25 Min	2.5 Min	2.59
NTE377	Si	Pwr Amp, Pwr Driver, Switch	TO220	80	80	10	50	60 Min	50	3.87
NTE196	Si	Amp, Gen Purpose	TO220	90	80(CER)	7	50*	20 Min	4	3.79
NTE56	Si	High Gain Sw & Pass Regulator	TO220	100	80	3	30*	500 Min	15	5.14
NTE261	Si	Darlington Pwr Amp	TO220	100	100	8	65	1000 Min	—	3.94
NTE263	Si	Darlington Pwr Amp	TO220	100	100	10	65	1000 Min	—	4.16
NTE2343	Si	Darlington Audio, Amp, Dr	TO220	100	100	12	80*	1000 Min	—	2.91
NTE291	Si	Amp, Gen Purpose	TO220	130	120	4	40	70	4 Min/ 5 Min	3.14
NTE54	Si	High Freq Audio Driver	TO220	150	150	8	50	100/120	30 Min	4.61
NTE375	Si	Vert Deflection Amp	TO220	200	150	3/2	25	150/100	8/5	3.54
NTE198	Si	High Vltg Audio Output	TO220	500	500(CES)	1	40*	80	10 Min	3.96
NTE51	Si	High Vltg, High Speed Sw	TO220	700	400	4	75	30	4 Min	7.52
NTE379	Si	High Vltg Switch	TO220	700	400	12	100	12	4 Min	14.14
NTE2312	Si	HV High Speed Switch	TO220	700(CEV)	400(SUS)	8	80	60 Max	4 Min	7.46
NTE2337	Si	High Vltg, High Speed Sw	TO220 Isol Tab	900	500	7	2/45*	15 Min	20	12.51
NTE270	Si	Darlington Pwr Amp Switch	TO218	100	100	10	125	1000 Min	—	8.12
NTE390	Si	Pwr Amp, Switch	TO218	100	100	10	80	40 Min	3	6.10
NTE392	Si	Pwr Amp Switch	TO218	100	100	25	125	25 min	3	8.65
NTE2311	Si	High Vltg/Speed Sw	TO218	1000	450	15	150	10	—	20.22
NTE128P	Si	General Purpose Amp	TO237	100	80	1	1/2	100 Min	150/125	1.75

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				BV _{CBO}	BV _{CEO}					
NPN										
NTE2328	Si	Audio Pwr Output	—	200	200	15	150	55 Min	30/25	\$11.36
PNP										
NTE383	Si	Audio Freq Driver	R245	120	100	1	0.9	200	140	2.47
NTE102A	Ge	Medium Power Amp	TO1	32	32(CES)	1	0.65	120	—	2.81
NTE102	Ge	power Output, Dr, Sw	TO5	25	24(CES)	0.15	0.15	90	—	6.43
NTE219	Si	Power Amp, Gen Purpose	TO3	100	70(CER)	15	115	20 Min	2.5 Min	6.53
NTE181	Si	High Power Audio Amp	TO3	100	100(CER)	30	200	25 Min	2 Min	9.49
NTE285	Si	Audio Amp Output	TO3	180	180	16	150	70	6	22.75
NTE37	Si	Audio Power Amp	TO3P	160	140	12	100	100	15	8.78
NTE159M	Si	General Purpose Amp	TO18	75/60	40/60	0.8/0.6	0.45	200/ 100 Min	300/ 200 Min	1.42
NTE129	Si	Amp, Gen Purpose	TO39	120/90	80	1	1	90 Min	100 Min/ 150 Min	3.04
NTE160	Ge	RF-IF Amp, FM Mixer/OSC	TO72	30	20(CES)	0.01	0.1	50	550	5.28
NTE232	Si	Gen Purp Darlington Amp	TO92	30	30	0.3	0.625	50000 Min	175	1.50
NTE290	Si	Audio Power Amp/Sw	TO92	35	30	0.8	0.6	120 Min	100/140	2.47

Continued on next page....

Cat. No.	Material	Application	Case Style	Maximum Breakdown Voltage (Volts)		Maximum Collector Current (Amps) I_c	Maximum Collector Dissipation (Watts) P_D	Typical Forward Current Gain h_{FE}	Typical Frequency (MHz) f_r	Net Price
				BV _{CBO}	BV _{CEO}					
NTE159	Si	Amp, Gen Purpose	TO92	75/80	40/80	0.6/1	0.625	200/180	300 Min/200	1.45
NTE290A	Si	Audio Power Amp	TO92	100	80	0.5	0.6	100 Min	120	2.14
NTE288	Si	High Vltg, Gen Purp Amp	TO92	300	300	0.5	0.625	40 Min	50 Min	1.25
NTE294	Si	Audio Amp & Driver	Giant TO92	60	50	1	1	120 Min	200	2.47
NTE298	Si	Audio Amp Driver	Giant TO92	80	80	0.5	0.75	130 Min	120	4.99
NTE185	Si	Audio Power Amp, Sw	TO126	80	80	4	40	25 Min	2 Min	2.92
NTE254	Si	Darlington Power Amp	TO126	80	80	4	40	2500	—	3.36
NTE374	Si	Audio Amp, Driver	TO126	180	160	1.5	20	190	140	2.67
NTE189	Si	High Vltg Amp	TO202N	80	80	2	10	60 Min	100	12.53
NTE153	Si	Amp, Gen purpose	TO220	60	60	5	50	60	10	3.11
NTE378	Si	Pwr Amp, Pwr Driver, Switch	TO220	80	80	10	50	60 Min	50	4.23
NTE262	Si	Darlington Pwr Amp	TO220	100	100	8	65	1000 Min	—	4.02
NTE264	Si	Darlington Pwr Amp	TO220	100	100	10	65	1000 Min	—	5.09
NTE332	Si	Audio Amp, Switch	TO220	100	100	15	90	40 Min	3 Min	3.99
NTE2344	Si	Darlington Audio Amp, Dr	TO220	100	100	12	80*	1000 Min	—	2.91
NTE292	Si	Amp, Gen Purpose	TO220	130	120	4	40	70	4 Min/5 Min	3.54
NTE55	Si	High Freq Audio Driver	TO220	150	150	8	50	100/120	30 Min	5.54
NTE271	Si	Darlington Pwr Amp Switch	TO218	100	100	10	125	1000 Min	—	2.87
NTE129P	Si	General Purpose Amp	TO237	100	80	1	1/2	100 Min	150/125	2.09
NTE2329	Si	Audio Pwr Output	—	200	200	15	150	55 Min	30/25	9.97

* T_c = +25°C

** Denotes Surface Mount Types

FIELD EFFECT TRANSISTORS

Cat. No.	Polarity and Material	Description and Application	Case Style	Voltage Gate to Source Min (Volts) BV _{GSS}	Cutoff Voltage Gate to Source Max (OFF) (Volts) V _{GS}	Drain Current Zero-Gate Min-Max (mA) I _{DSS}	Drain Current Max (OFF) (mA) I _D	Res Drain to Source Max (ON) (Ohms) r _{DSS}	Cap Input Max (pf) C _{ISS}	Rev Trans Cap Max (pf) C _{RES}	Transconductance Typ (μmhos) g _{fs}	Power Dissp Max (mW) P _D	Net Price
NTE133	JFET N-CH	Gen Purp AF Amp Switch	TO106	25	6	0.5-15	—	—	6	2	4000	300	\$1.69
NTE222	Dual Gate MOSFET N-CH	VHF Amp/Mix, NF 6dB Max at 200 MHz, gate Protected	TO72	20	4	5-35	—	—	6 Typ	0.03	12000	330	17.03
NTE312	JFET N-CH	VHF Amp/Mix, NF 4dB Max at 400MHz	TO92	30	6	5-15	—	—	4.5	1	5500	360	1.99
NTE326	JFET P-CH	Gen Purp AF Amp NF 2.5dB Max at 100Hz	TO92	60	7.5	2-9	—	—	7	2	3000	310	2.47
NTE451	JFET N-CH	UHF/VHF Amp, NF 4dB at 400MHz	TO92	25	4	4-10	—	—	5	1	4000	310	2.14
NTE467	JFET N-CH	Chopper/High Speed Switching	TO92	30	12	50 Min	1.0nA	30	10	4	—	310	1.85

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WE ARE EAGER TO HELP.**

Grayhill Test Clips & Components

MANU
174
CODE



02-60



02-0
THREADED
STUD



02-1
BANANA
PLUG



02-4 THREADED STUD
WITH INSULATING
WASHERS

STANDARD TEST CLIPS

The basic clip is available in four types of mounting. Designed for panel mounting on test equipment to allow rapid connections without manually opening and closing of jaws. Hex nut allows for tension adjustment of each clip. Clips are nickel plated brass. Length of test clip (excluding mounting base) is 1.14" max.

Cat. No.	Description	Net Price
02-0	#8-32 threaded stud for panels to 1/4"	\$2.57
02-1	Standard banana plug	4.15
02-4	2-0 with washers for panels to .187"	3.84
02-60	Extruded hole, tapped #8-32	2.62



02-20
THREADED
STUD



02-21
BANANA
PLUG



02-24
THREADED STUD
WITH MOLDED PHENOLIC
INSULATING WASHERS

MINIATURE TEST CLIPS

Miniature version of the standard 2-0 test clip. Clip extends only 3/4" above mounting panel. Designed to allow rapid connections without manually opening and closing jaws. Hex nut under clip allows for tension adjustment. All metal parts are nickel plated brass except threaded stud which is nickel plated steel.

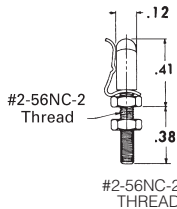
Cat. No.	Description	Net Price
02-20	6-32 threaded stud	\$2.90
02-21	Banana plug	4.25
02-24	6-32 stud, insulating washers	3.84



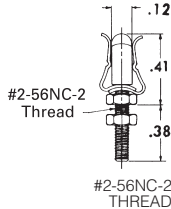
02-41
SINGLE
CLIP



02-42
DOUBLE
CLIP



#2-56NC-2
THREAD



#2-56NC-2
THREAD

ULTRA MINIATURE TEST CLIPS

For simplified, rapid testing of "pig-tail" lead components, also single wire connections and breadboard work. Panel area required, exclusive of nut; single unit -3/16" x 1/8"; double unit -1/4" x 1/8". Mounting stud -3/8" long. Hex nut under spring adjusts tension. Nickel plated brass with nickel plated, heat treated beryllium copper spring.

Cat. No.	Description	Net Price
02-41	Single, Nickel plated	\$2.90
02-42	Double, Nickel plated	3.10



29-104
MOLDED
PHENOLIC
WASHERS



29-101
BANANA
PLUG



29-100
29-110
29-125
THREADED STUD

PUSH POSTS

These posts are operated by depressing the plunger, inserting leads, and releasing plunger. Spring pressure assures firm, positive contact. Only 3/4" over-all height above mounting surface. Nickel plated brass parts. No. 29-125 same as 29-110 except with stainless steel spring for temperature to 600°F.

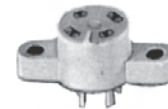
Cat. No.	Description	Net Price
29-100 RED	Red button cap	\$4.23
29-100 BLK	Black button cap	4.23
29-101 RED	Red button cap	6.57
29-101 BLK	Black button cap	6.57
29-104 RED	Red button cap	5.81
29-104-BLK	Black button cap	5.81
29-110	No button cap	4.03
29-125	No button cap	4.49



COLOURED SLEEVES FOR NO. 31 TEST JACKS

Sleeves snap-on and permanently lock in place over test jack. Molded of thermosetting plastic. Overall dimensions: .24" dia. x .29" high. Comes in five different colors.

Cat. No.	Colour	Net Price
31B-1 BLK	Black	\$2.45
31B-2 RED	Red	2.45
31B-3 GRN	Green	3.08
31B-8 WHT	White	3.20



TRANSISTOR SOCKET

Designed for TO-12, TO-33 type transistors. Leads fit on 100 mil grid for printed circuits. Socket fits through 3/8" hole and may be fastened with rivets or #2 screws. Terminal numbers are molded into bottom of socket and top face has key rib for alignment with transistor tab. Contacts are silver-plated beryllium copper with gold flash. Molded mica-filled phenolic.

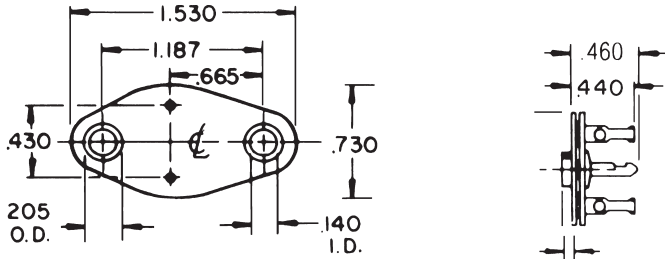
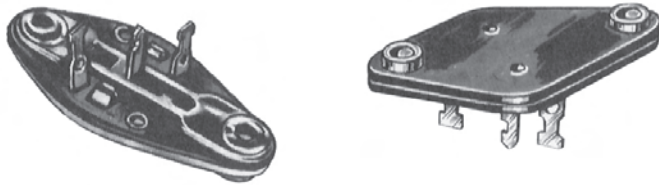
Cat. No.	Net Price
22-11	\$3.79



BI-PIN LAMP SOCKET

Accepts T-1-1/4, T-1-3/4 subminiature bi-pin lamps. Leads should be trimmed to .150" length for proper fit. Obsoletes practice of soldering lamps directly into circuit. Terminals and contacts are heat treated beryllium copper with lead-tin plate. Socket body material is molded phenolic.

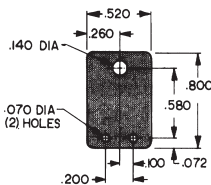
Cat. No.	Net Price
22-3	\$5.60



KEYSTONE POWER TRANSISTOR SOCKETS SPACE SAVER SOCKETS FOR TO-3 CASE

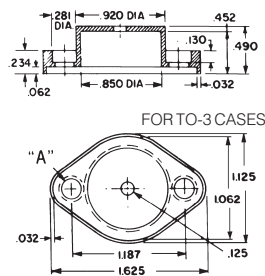
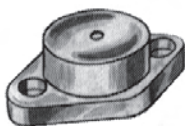
Low cost, compact, rugged sockets for easy, fast mounting with the least amount of hardware. Cadmium plated spring brass contacts provide positive contact. The socket is held underneath the chassis and the semiconductor is inserted into the contacts, holding the assembly in position. Both the semiconductor and the socket are then held securely by 6-20 screws threaded into each end of the hard steel collector plate. Phenolic base. Molded nylon top plate with the choice of boss heights eliminates need for separate bushings.

Cat. No.	Boss Height Dim "A"	Nylon Colour	Net Price Each		
			1-19	20-99	100-Up
4601	.090"	Natural	\$1.48	\$1.34	\$1.29
4602	.045"	Blue	1.48	1.34	1.29



PLASTIC CASE MICA INSULATORS

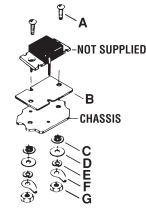
Cat. No.	Net Price Per 1000
4671	\$47.71



MOLDED NYLON COVERS FOR TO-3 CASES

Molded nylon covers easily mount over and insulate the power transistor. Will withstand temperatures to approx. 300°F. Available with or without brass eyelets installed in mounting holes to assure proper electrical contact with collector/case.

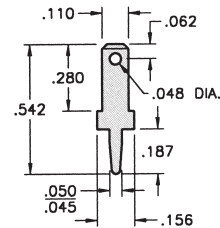
Cat. No.	For	Eyelets Installed	Net Price Per 1000		
			1-499	500-999	1000-Up
4634	TO-3	Two	\$591.07	\$416.11	\$268.69



KEYSTONE SEMICONDUCTOR MOUNTING KITS

These pre-packaged universal mounting kits provide all the necessary hardware and insulators required to securely mount the semiconductor to the chassis or heat sink. Individual parts are also available in packages of 100, as shown below. Note that the quantities given refer only to the complete mounting kits, and not to the pricing of the individual items.

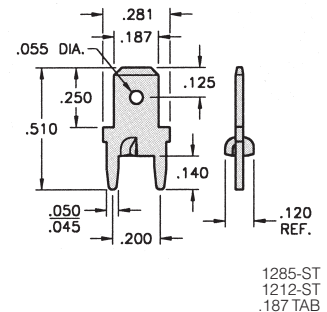
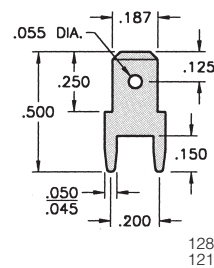
Cat. No.	Item	Qty. in Kit	Description	Net Price Each	
				1-499	500-Up
MOUNTING KIT FOR TO-220 CASE					
4724	Complete Mounting Kit			\$1.72	\$1.37
4690	A	1	4-40 Screw	.03	.02
4672	B	1	Mica Insulator	.04	.03
3049	C	1	Shoulder Washer	.07	.05
4693	E	1	Lockwasher	.03	.02
4694	G	1	4-40 Nut	.04	.03



PC QUICK-FIT MALE TERMINALS

.110 TAB	Cat. No.	Material	Mounting Hole	Net Price
	1267	.020 Brass Tinned	.046 Dia.	\$.09
	1211	.032 Brass Tinned	.052 Dia.	.09

NOTE: Use Quick-Fit Insertion Tool Cat. No. 1288.



PC QUICK-FIT MALE TERMINALS

Cat. No.	Material	Mounting Hole	Net Price Per 1000
1285	.020 Brass Tinned	.046 Dia.	\$67.28
1212	.032 Brass Tinned	.052 Dia.	73.14

STURDI-MOUNT

1285-ST	.020 Brass Tinned	.046 Dia.	41.25
1212-ST	.032 Brass Tinned	.052 Dia.	44.85

NOTE: Use Quick-Fit Insertion Tool Cat. No. 1288.



B&K MODEL 4040A 20 MHz SWEEP/FUNCTION GENERATOR WITH FREQUENCY COUNTER

Features: 0.2 Hz to 20 MHz. AM and FM modulation. Burst operation. External frequency counter to 30 MHz. 5 digit LED display. Sine, Square, Triangle, Pulse, TTL output, CMOS output and Ramp output. Linear and log sweep. Frequency range: 0.2 Hz to 20 MHz in 8 ranges. Variable duty cycle. Output impedance: $50\Omega \pm 10\%$. Attenuation: $-20\text{ dB} \pm 1\text{ dB}$. Sine wave distortion: 3% typical at 1 kHz. Rise time: $\leq 20\text{ nS}$. Duty cycle: 50% typical. VCG (voltage controlled generator) input: $0\text{-}10\text{V} \pm 1\text{V}$ causes a 100:1 frequency change. Sweep output: 0 to 2V. Frequency counter accuracy: Time base accuracy ± 1 count. External input frequency: 5 Hz to 30 MHz. Power requirements. 120/230VAC $\pm 10\%$, 50/60 Hz, internal jumper selectable. Dimensions: 4 $\frac{1}{2}$ " H \times 10 $\frac{1}{2}$ " W \times 11 $\frac{1}{16}$ " D. Comes complete with output cable, BNC to alligator clips and instruction manual. Two year warranty.

Cat. No.	Net Price
4040A	\$746.92



B&K MODEL 3003 HAND HELD BATTERY OPERATED 10MHz SINE AND SQUARE WAVE GENERATOR

FEATURES: 0.1 Hz to 9.9999999 MHz sine square wave signal generator. Simultaneous sine and square wave generation. 0.1 Hz frequency selectability. 0.02% signal accuracy. Sine wave output - 0 to 4.5Vp-p (no load). Square wave output - 5Vp-p (no load). 50 ohm output impedance. AC power adapter included. Can be powered by a standard 9V battery. Dimensions: 2.1" \times 3.6" \times 6.0".

Cat. No.	Net Price
3003	\$248.14



B&K MODEL 510A PORTABLE TRANSISTOR TESTER

The model 510 test with selectable HI-LO drive for accurate in-circuit and out of circuit transistor testing. Good-Bad test for transistors, FET's and SCR's. Identifies transistors as NPN or PNP, FET as N-channel or P-channel. Identifies FET gate lead. Identifies all leads of SCR's. Fast GO-NO-GO in-circuit transistor testing. Gives positive emitter-base-collector identification in LO-drive and positive base identification in HI-drive. Light emitting diodes indicate NPN-OK or PNP-OK. Pocket size, over 100 hours of testing from four "AA" batteries. Supplied with test leads. Power requirements: 6VDC.

Cat. No.	Net Price
510A	\$367.85



B&K MODEL 520C INDUSTRIAL TRANSISTOR TESTER

The 520C with its HI/LO power drive lets you test even more transistors and semiconductors in circuit, with shunt resistance as low as 10 ohms and shunt capacitance up to 15 μF . Random lead connection. Audible and visually indicates good transistor. Automatic NPN/PNP determination. Positive Si/Ge identification. Test diodes, SCR's, Fet's and Darlingtons. Accessories: Colour coded test leads with mini lock chips, detailed instruction. Power Requirements: 9V battery.

Cat. No.	Net Price
520C	\$554.89



570



575

IC TESTERS MODELS 570/575

Now integrated circuits are easily identified and tested with B&K Precision's new Handheld IC Testers. Two models are available, one for linear and one for digital ICs, both with extensive built-in libraries. Small, handheld design is battery powered for portability in the field or lab. Very large scale integration allows for advanced functionality, ease-of-use and reliable testing of hundreds of ICs. Remove the guesswork, don't wonder any longer: Identify, test and verify unknown ICs, quickly and reliably. Batteries and operation manual included.

MODEL 570—LINEAR IC TESTER

Easy-to-use, no programming or fixturing required. Simply plug in the device, key in the part's number or use Auto Detect and the 570 will do the rest. Proven test software using advanced technology makes this the ideal addition to your toolkit. **FEATURES:** Tests all common analog IC's. Auto identification of unmarked/house-coded devices lists possible replacements. Conditional/unconditional loop testing modes. Functional test emulates passive circuitry to implement a comprehensive test in a variety of configurations. Displays diagnostic information down to individual component pins. Rugged, handheld, ergonomically designed case incorporates built-in membrane keypad, 2 \times 16 dot matrix alpha-numeric, LCD and high quality 16 pin ZIF socket. Battery operated (2 \times 9V) with low power design. Auto power off. One year warranty. AC adapter available.

MODEL 575—DIGITAL IC TESTER

Test a large variety of digital ICs with the 575 tester. Large built-in library offers a broad range of ICs to select from, including TTL, CMOS, Memory, LSI and others. Simple single shot IC tests are easily performed by keying in the IC number on the integrated keypad. Results are displayed instantly. Search feature finds unmarked IC and displays possible functional equivalents. **FEATURES:** 40 pin wide-entry ZIF sockets test a broad range of TTL, CMOS, Memory, LSI, Interface and other devices (NAND gates to CPUs). Identifies unmarked and house-coded devices. Detects intermittent and temperature related faults. Displays diagnostic information for individual pins. Battery operated (4 \times 1.5 AA batteries). One year warranty. AC adapter available.

Cat. No.	Description	Net Price
570	Linear IC tester	\$1240.72
575	Digital IC tester	1116.02



B&K MODEL 114B 20,000 OHMS/VOLT MULTIMETER

Features: 28 ranges. 3½ mirrored scale. Test batteries under load. Tests transistors. Overload protection. DC volt ranges: 0-300mV, 3V, 12V, 30V, 120V, 300V, 1200V. AC volt ranges: 0-6V, 30V, 120V, 300V, 1200V. DC current 0.60µA, 3mA, 30mA, 300mA, 12A. Battery test (good-bad scale). Power requirement: Two 1.5 "AA" and one 9V. Operating temperature: 0 to 40°C. Dimensions: 5¾" H x 3⅞" W x 1⅞" D. Comes complete with batteries, test leads, one red and one black, transistor test leads and manual.

Cat. No.	Net Price
114B	\$50.98



B&K MODEL 1730A ANALOG SINGLE OUTPUT DC POWER SUPPLY 30V/3A SINGLE OUTPUT ANALOG METERING

Features: New compact size. Reliable, durable. Operate continuously at full load without overheating. Fully overload protected. Coarse and fine voltage controls. Output voltage: 0-30V. Output current: 0-3A. Ripple and noise: ≤1mV rms. Current ripple: ≤3mA. Analog metering. Regulated outputs, constant volt and constant current. Voltmeter range: 0-32V. Voltmeter accuracy: ±2.5%. Ammeter range —High: 0-3.2A, Low: 0-0.53A. Ammeter accuracy: ±2.5%. Overload protection. Power consumption: 180W. Power requirements: 120VAC ±10%, 60Hz. Operating temperature: 0°C to 40°C, <75% R.G. Dimensions: 6.2" H x 5.5" W x 12.5" D. Two year warranty.

Cat. No.	Net Price
1730A	\$405.26



B&K MODEL 1735A DIGITAL SINGLE OUTPUT DC POWER SUPPLY 30V/3A SINGLE OUTPUT DIGITAL METERING

Features: Excellent regulation. Very low ripple. Constant voltage or constant current operation. Continuously monitor voltage and current output on two meters. Output voltage: 0-30V. Output current: 0-3A. Ripple and noise: ≤1mV rms. Current ripple: ≤3mA. 4-digit LED metering. Voltmeter range: 0-99.99V (green). Voltmeter accuracy: ±(0.5% rdg + 9 digits). Ammeter range —High: 0-9.999A (red). Ammeter accuracy: ±(0.5% rdg + 9 digits). Overload protection. Power consumption: 180W. Power requirements: 120VAC ± 10%, 60Hz. Operating temperature: 0° to 40°C, <75% R.H. Dimensions: 6.2" x 5.5" W x 21.5" D. Two year warranty.

Cat. No.	Net Price
1735A	\$497.53

B&K MODEL 1711A ANALOG SINGLE OUTPUT DC POWER SUPPLY 60V/2A SINGLE OUTPUT ANALOG METERING

Same as 1730A above except —Output voltage: 0-60V. Output current: 0.2A. Voltmeter range: 0-64V. Ammeter range —High: 0-2.2 A, Low: 0-0.55A. Power consumption: 210W.

Cat. No.	Net Price
1711A	\$399.03

B&K MODEL 1715A DIGITAL SINGLE OUTPUT DC POWER SUPPLY 60V/2A SINGLE OUTPUT DIGITAL METERING

Same as 1735A above except —Output voltage: 0-60V. Output current: 0-2A. Power consumption: 210W.

Cat. No.	Net Price
1715A	\$497.53



REGULATED DC POWER SUPPLIES MODELS 1790/1791

Models 1790/1791 are cost effective, high power, 20A regulated DC power supplies with 640 Watt output. These linear power supplies are high power workhorses that will easily deliver clean power to your high-current circuits. Special features include the ability to set constant current with no load and remote sense to compensate for any wire loss. The 1790/1791 is designed to have superior performance to comparable models costing 20 to 30% more. Meets CE specifications: **FEATURES:** Constant Voltage/Constant Current Operation. Remote Programming Facility. Facility for Presetting the Output Voltage and Max. Load Current Limits. Separate DC Output ON/OFF Switch. Remote Sensing Facility. High Stability and Close Regulation ±0.01%. Meet CE Specifications.

	1790	1791
Output (DC)	0-32V	0-64V
Output Current (DC)	0-20A	0-10A
Constant Voltage Mode		
Line Regulation	±0.01% ±2mV	
Load Regulation	±0.01% ±2mV	
Ripple and Noise	1mV rms max	
Constant Current Mode		
Line Regulation	±0.05% ±10mA	
Load Regulation	±0.05% ±10mA	
Ripple and Noise	5mA rms Max	4mA rms Max
Overload Protection	Constant current type	
Stability	±0.2% ±10mV in CV mode ±0.5% ±10mA in CC mode	
Operating Temperature	32° to 104°F (0° to 40°C)	
Input	115V/60Hz	
Dimension (W x H x D)	19 x 5.25 x 15.75" (483 x 133 x 400mm)	
Accessories Supplied	User Manual	

Cat. No.	Net Price
1790	\$1683.38
1791	1683.38