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








### Miniature Lamp Drawings & Specifications

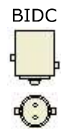

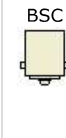

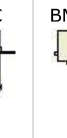
Traditional incandescent miniature lamps (bulbs) are described by a letter indicating shape and a number that is an approximation of diameter expressed in eighths of an inch. For example, B-4 is "B" shape, 4 eighths or one half inch in diameter. Profile sketches of the most popular glass domes and metal bases are provided for visual identification, and they are also useful in engineering drawings (right-click on image and copy to your clipboard). These bulb types are found mostly in equipment manufactured prior to the early 2000s, because they have been replaced with more energy efficient and longer lasting white LEDs (which are actually blue LEDs with a phosphor coating to obtain a wide spectral content). Sources such as [Digi-Key](#) and [Amazon](#) still carry most of these bulbs, both incandescent and LED equivalents.

Lamp Base Legend					
BDC	Bayonet, dual-contact	FSMD	Flanged, submidget	SMD	Screw, midget
BIDC	Bayonet, indexed dual-contact	GMD	Midget grooved	SMN	Screw, miniature
BMN	Bayonet, miniature	MTP	Miniature two-pin	SPTH	Screw, special thread
BP	Bipin	PFDC	Prefocused dual contact	W	Wedge
BSC	Bayonet, single-contact	SL	Slide (various sizes)	WSMN	Wedge, subminiature
FSCMN	Flanged, single-contact, miniature	SC	Screw, candelabra	WT	Wire terminal
FSCMD	Flanged, midget single-contact	SI	Screw, intermediate		




**Bulb Styles**

						
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**Bayonet Bases**

				
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


**Flange Bases**

		
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



**Screw Bases**

			
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**Wedge Bases**

		
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**Miscellaneous Bases**

			
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Type	Bulb	Base	Volts (V)	Current (A)	Lifetime (x1000 hrs)
PR2	B-3.5	FSCMN	2.38	0.500	15
PR3	B-3.5	FSCMN	3.57	0.500	15
PR4	B-3.5	FSCMN	2.33	0.270	10
PR6	B-3.5	FSCMN	2.47	0.300	30
PR7	B-3.5	FSCMN	3.70	0.300	30
PR12	B-3.5	FSCMN	5.95	0.500	15
PR13	B-3.5	FSCMN	4.75	0.500	15
10	G-3.5	MTP	2.50	0.500	3K
12	G-3.5	MTP	6.30	0.150	5K
13	G-3.5	SMN	3.70	0.300	15
14	G-3.5	SMN	2.47	0.300	15
19	G-3.5	MTP	14.40	0.100	1K
27	G-4.5	SMN	4.90	0.300	30
37	T-1.75	WSMN	14.00	0.090	1.5K
40	T-3.25	SMN	6.30	0.150	3K
43	T-3.25	BMN	2.50	0.500	3K
44	T-3.25	BMN	6.30	0.250	3K
45	5-3.25	BMN	3.20	0.350	3K
46	T-3.25	SMN	6.30	0.250	3K

Standard Line-Voltage Lamps					
Type	V	W	Bulb	Base	
10C7DC	115-125	10	C-7	BDC	
3S6	120, 125	3	S-6	SC	
6S6	30, 48, 115, 120, 125, 130, 135, 145, 155	6	S-6	SC	
6S6/R	115-125	6	S-6 (red)	SC	
6S6/W	115-125	6	S-6 (white)	SC	
6T4.5	120, 130	6	T-4.5	SC	
7C7	115-125	7	C-7	SC	
7C7/W	115-125	7	C-7 (white)	SC	
10C7	115-125	10	C-7	SC	
10S6	120	10	S-6	SC	
10S6/10	220, 230, 25	10	S-6	SC	
6S6DC	30, 120, 125, 145	6	S-6	BDC	
10S6/10DC	230, 250	10	S-6	BDC	
40S11 N	115-125	40	S-11	SI	
120MB	120	3	T-2.5	BMN	

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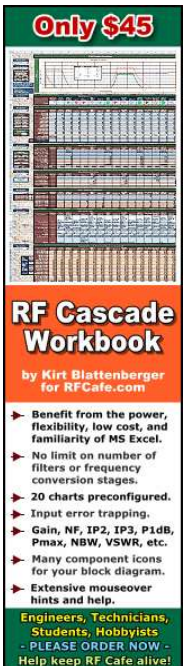
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47	T-3.25	BMN	6.30	0.150	3K
48	T-3.25	SMN	2.00	0.060	1K
49	T-3.25	BMN	2.00	0.060	1K
50	G-3.5	SMN	7.50	0.220	1K
51	G-3.5	BMN	7.50	0.220	1K
52	G-3.5	SMN	14.40	0.100	1K
53	G-3.5	BMN	14.40	0.120	1K
55	G-4.5	BMN	7.00	0.410	500
57	G-4.5	BMN	14.00	0.240	500
63	G-6	BSC	7.00	0.630	1K
73	T-1.75	WSMN	14.00	0.080	15K
74	T-1.75	WSMN	14.00	0.100	500
82	G-6	BDC	6.50	1.020	500
85	T-1.75	WSMN	28.00	0.040	7K
86	T-1.75	WSMN	6.30	0.200	20K
88	S-8	BDC	6.80	1.910	300
93	S-8	BSC	12.80	1.040	700
112	TL-3	SMN	1.20	0.220	5
130	G-3.5	BMN	6.30	0.150	5K
131	G-3.5	SMN	1.30	0.100	50
158	T-3.25	W	14.00	0.240	500
159	T-3.25	W	6.30	0.150	5K
161	T-3.25	W	14.00	0.190	4K
168	T-3.25	W	14.00	0.350	1.5K
219	G-3.5	BMN	6.30	0.250	5K
222	TL-3	SMN	2.25	0.250	0.5
239	T-3.25	BMN	6.30	0.360	5K
240	T-3.25	BMN	6.30	0.360	5K
259	T-3.25	W	6.30	0.250	5K
268	T-1.75	FSCMD	2.50	0.350	10K
305	S-8	BSC	28.00	0.510	300
307	S-8	BSC	28.00	0.670	300
308	S-8	BDC	28.00	0.670	300
313	T-3.25	BMN	28.00	0.170	500
323	T-1.25	SPTHD	3.00	0.190	350
327	T-1.75	FSCMD	28.00	0.040	4K
327AS15	T-1.75	FSCMD	28.00	0.040	4K
328	T-1.75	FSCMD	6.00	0.200	1K
330	T-1.75	FSCMD	14.00	0.080	1.5K
331	T-1.75	FSCMD	1.35	0.060	3K
334	T-1.75	GMD	28.00	0.040	4K
335	T-1.75	SMD	28.00	0.040	4K
336	T-1.75	GMD	14.00	0.080	1.5K
337	T-1.75	GMD	6.00	0.200	1K
338	T-1.75	FSCMD	2.70	0.060	6K
342	T-1.75	SMD	6.00	0.040	10K
344	T-1.75	FSCMD	10.00	0.014	50K
345	T-1.75	FSCMD	6.00	0.040	10K
346	T-1.75	GMD	18.00	0.040	10K
349	T-1.75	FSCMD	6.30	0.200	5K
370	T-1.75	FSCMD	18.00	0.040	10K
373	T-1.75	SMD	14.00	0.080	1.5K
375	T-1.75	FSCMD	3.00	0.015	10K

120MB/6	120	6	T-2.5	BMN
120PSB	120	3	T-2	SL
120PS	120	3	T-2	WT
120PS/6	120	6	T-2.5	WT

Indicator Lamps (each has a T-2 bulb and a slide base)

Type	V	A	Lifetime (x1000 hrs)
6PSB	6.00	0.140	20K
12PSB	12.00	0.170	12K
24PSB	24.00	0.073	10K
28PSB	28.00	0.040	5K
48PSB	48.00	0.050	10K
60PSB	60.00	0.050	7.5K
120PSB	120.00	0.025	7.5K

Neon Glow Lamps (operating circuit voltage 105-125)

Breakdown Voltage						
Type	AC	DC	Bulb	Base	W	External Resistance
NE-2	65	90	T-2	WT	1/12	150K
NE-2A	65	90	T-2	WT	1/15	100K
NE-2D	65	90	T-2	FSCMD	1/12	100K
NE-2E	65	90	T-2	WT	1/12	100K
NE-2H	95	135	T-2	WT	1/4	30K
NE-2J	95	135	T-2	FSCMD	1/4	30K
NE-2V	65	90	T-2	WT	1/12	100K
NE-45	65	90	T-4 1/2	SC	1/4	None
NE-51	65	90	T-3 1/4	BMN	1/25	220K
NE-51H	95	135	T-3 1/4	BMN	1/7	47K
NE-84	95	135	T-2	SL	1/4	30K
NE-120PSB	95	95	T-2	SL	1/4	None

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Posted September 12, 2023  
(updated from original post on 10/22/2008)

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I created [RF Workbench](#) back in the early 1990s, before Windows dominated personal computers. Over about two years of coding every night and weekend, I alone wrote every line of Turbo Pascal code. It included features not found in the vast majority of DOS programs, including a fully graphical user interface, drop-down menus, movable windows, extensive error trapping, 3-D graphs, and detailed Help screens. I even wrote the mouse and printer drivers.

376	T-1.75	FSCMD	28.00	0.060	25K
380	T-1.75	FSCMD	6.30	0.040	20K
381	T-1.75	FSCMD	6.30	0.200	20K
382	T-1.75	FSCMD	14.00	0.080	15K
385	T-1.75	FSCMD	28.00	0.040	10K
386	T-1.75	GMD	14.00	0.080	15K
387	T-1.75	FSCMD	28.00	0.040	7K
388	T-1.75	GMD	28.00	0.040	7K
397	T-1.75	GMD	10.00	0.040	5K
398	T-1.75	GMD	6.30	0.200	5K
399	T-1.75	SMD	28.00	0.040	7K
502	G-4.5	SMN	5.10	0.150	100
555	T-3.25	W	6.30	0.250	3K
656	T-3.25	W	28.00	0.060	2.5K
680AS15	T-1	WT	5.00	0.060	60K
682AS15	T-1	FSMD	5.00	0.060	60K
683AS15	T-1	WT	5.00	0.060	25K
685AS15	T-1	FSMD	5.00	0.060	25K
715AS15	T-1	WT	5.00	0.115	40K
715AS25	T-1	WT	5.00	0.115	40K
718AS25	T-1	FSMD	5.00	0.115	40K
755	T-3.25	BMN	6.30	0.150	20K
756	T-3.25	BMN	14.00	0.080	15K
757	T-3.25	BMN	28.00	0.080	7.5K
1034	S-8	BIDC	14.00	0.590	5K
1073	S-8	BSC	12.80	1.800	200

1130	S-8	BDC	6.40	2.630	200
1133	RP-11	BSC	6.20	3.910	200
1141	S-8	BSC	12.880	1.440	1K
1143	RP-11	BSC	12.50	1.980	400
1184	RP-11	BDC	5.50	6.250	100
1251	G-6	BSC	28.00	0.230	2K
1445	G-3.5	BMN	14.40	0.130	2K
1487	T-3.25	SMN	14.00	0.200	3K
1488	T-3.25	BMN	14.00	0.150	200
1490	T-3.25	BMN	3.20	0.160	3K
1493	S-8	BDC	6.50	2.750	100
1619	S-8	BSC	6.70	1.900	500
1630	S-8	PFDC	6.50	2.750	100
1691	S-8	BSC	28.00	0.610	1K
1705	T-1.75	WT	14.00	0.080	1.5K
1728	T-1.75	WT	1.35	0.060	3K
1730	T-1.75	WT	6.00	0.040	20K
1738	T-1.75	WT	2.70	0.060	6K
1762	T-1.75	WT	28.00	0.040	4K
1764	T-1.75	WT	28.00	0.040	4K
1767	T-1.75	SMD	2.50	0.200	500
1768	T-1.75	SMD	6.00	0.200	1K
1775	T-1.75	SMD	6.30	0.075	1K
1813	T-3.25	BMN	14.40	0.100	1K
1815	T-3.25	BMN	14.00	0.200	3K
1816	T-3.25	BMN	13.00	0.330	1K
1818	T-3.25	BMN	24.00	0.170	250
1819	T-3.25	BMN	28.00	0.040	2.5K
1820	T-3.25	BMN	28.00	0.100	1K
1821	T-3.25	SMN	28.00	0.170	500
1822	T-3.25	BMN	36.00	0.100	1K
1828	T-3.25	BMN	37.50	0.050	3K
1835	T-3.25	BMN	55.00	0.050	5K
1847	T-3.25	BMN	6.30	0.150	5K
1850	T-3.25	BMN	5.00	0.090	1.5K
1864	T-3.25	BMN	28.00	0.170	1.5K
1869	T-1.75	WT	10.00	0.014	50K
1891	T-3.25	BMN	14.00	0.240	500
1892	T-3.25	BMN	14.40	0.120	1K
1893	T-3.25	BMN	14.00	0.330	7.5K
1895	G-4.5	BMN	14.00	0.270	2K
2102	T-1.75	WT	18.00	0.040	10K
2107	T-1.75	WT	10.00	0.040	5K
2158	T-1.75	WT	3.00	0.015	10K
2162	T-1.75	WT	14.00	0.100	10K
2169	T-1.75	WT	2.50	0.350	20K
2180	T-1.75	WT	6.30	0.040	20K
2181	T-1.75	WT	6.30	0.200	20K
2182	T-1.75	WT	14.00	0.080	40K
2187	T-1.75	WT	28.00	0.040	7K
2304	T-1.75	BP	3.00	0.300	1.5K
2307	T-1.75	BP	6.30	0.200	5K
2314	T-1.75	BP	28.00	0.050	1K

2316	T-1.75	BP	18.00	0.040	10K
2324	T-1.75	BP	28.00	0.040	4K
2335	T-1.75	BP	14.00	0.080	15K
2337	T-1.75	BP	6.30	0.200	20K
2342	T-1.75	BP	28.00	0.040	25K
3149	T-1.75	BP	5.00	0.060	5K
6803AS25	T-.75	WT	5.00	0.060	60K
6833AS15	T-.75	WT	5.00	0.060	25K
6838	T-1	WT	28.00	0.024	4K
6839	T-1	FSMD	28.00	0.024	4K
7001	T-1.75	BP	24.00	0.050	2K
7003	T-1.75	BP	24.00	0.050	2K
7153AS15	T-.75	WT	5.00	0.115	40K
7265	T-1	BP	5.00	0.060	5K
7327	T-1.75	BP	28.00	0.040	4K
7328	T-1.75	BP	6.00	0.200	1K
7330	T-1.75	BP	14.00	0.080	1.5K
7344	T-1.75	BP	10.00	0.014	50K
7349	T-1.75	BP	6.30	0.200	5K
7361	T-1.75	BP	5.00	0.060	25K
7362	T-1.75	BP	5.00	0.115	40K
7367	T-1.75	BP	10.00	0.040	5K
7370	T-1.75	BP	18.00	0.040	10K
7371	T-1.75	BP	12.00	0.040	10K
7373	T-1.75	BP	14.00	0.100	10K
7374	T--1.75	BP	28.00	0.040	10K
7375	T-1.75	BP	3.00	0.015	10K
7376	T-1.75	BP	28.00	0.065	10K
7377	T-1.75	BP	6.30	0.075	1K
7380	T-1.75	BP	6.30	0.040	30K
7381	T-1.75	BP	6.30	0.200	20K
7382	T-1.75	BP	14.00	0.080	15K
7387	T-1.75	BP	28.00	0.040	7K
7410	T-1.75	BP	14.00	0.080	15K
7839	T-1	BP	28.00	0.025	4K
7876	T-1.75	BP	28.00	0.060	25K
7931	T-1.75	BP	1.35	0.060	3K
7945	T-1.75	BP	6.00	0.040	20K
7968	T-1.75	BP	2.50	0.200	500
8099	T-1	BP	18.00	0.020	16K
8362	T-1.75	SMD	14.00	0.080	15K
8369	T-1.75	SMD	28.00	0.065	10K



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RF Cafe began life in 1996 as "RF Tools" in an AOL screen name web space totaling 2 MB. Its primary purpose was to provide me with ready access to commonly needed formulas and reference material while performing my work as an RF system and circuit design engineer. The World Wide Web (Internet) was largely an unknown entity at the time and bandwidth was a scarce commodity. Dial-up modems blazed along at 14.4 kbps while tying up your telephone line, and a nice lady's voice announced "You've Got Mail" when a new message arrived...

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