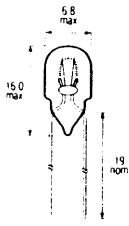
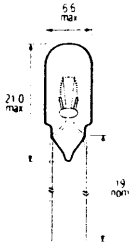
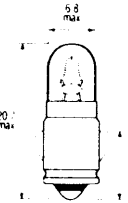
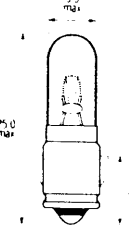


595-160 →  
to 595-457

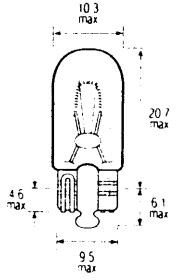
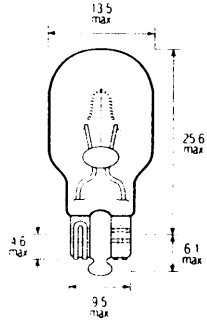
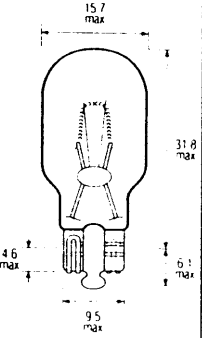
# LAMP DATA

T-1½, T-1¾, T-2 and T-2¼ Wedge Base Lamps									
Volts	Amps/Watts	Lumens	MSCP	Life (hours)	Filament shape	T-1½ 5mm Wedge Base W2 x 4.6d	T-1¾ 6mm Wedge Base	T-2 6.5mm Wedge Base	T-2¼ 7mm Wedge Base W2 x 4.6d
6	0.03	0.3	0.024	3,000	C-2R	1103			
6	0.08	0.9	0.07	5,000	C-2V	1104			
6	0.167	3.8	0.30	5,000	C-2R	1105			
6.3	0.04	0.3	0.02	20,000	C-2V		84		
6.3	0.20	5.0	0.40	20,000	C-2V		86		
12	0.03	0.7	0.056	3,000	C-2V	1107			
12	0.05	1.9	0.15	5,000	C-2V	1192			
12	1W	3.0	0.24	5,000	C-2V	1108			
12	1.2W <sup>1</sup>	7.0 <sup>1</sup>	0.56 <sup>1</sup>	3,000min <sup>1</sup>	C-2V	286-20L			
12	1.2W <sup>1</sup>	7.2 <sup>1</sup>	0.60 <sup>1</sup>	1,000 <sup>1</sup>	C-2V	286			
12	1.5W	5.3	0.42	5,000	C-2F	1182			
12	1.7W <sup>4</sup>	12.5 <sup>4</sup>	1.00 <sup>4</sup>	1,000 <sup>4</sup>	C-2V				71210
12	2W	6.3	0.50	4,000	C-2V	1102			
12	2W	7.5	0.60	1,000	C-2F	924			
12	2W <sup>1</sup>	12.0 <sup>1</sup>	0.95 <sup>1</sup>	1,500 <sup>1</sup>	C-2V	1020		1320	71220
14	0.08	3.8	0.30	15,000	C-2F		73		
14	0.09	6.3	0.50	1,500	C-2F		37		
14	0.10	8.8	0.70	500	C-2F		74		
14	0.18	17.0	1.35	1,000	C-2V			6583x <sup>3</sup>	
14	3W	23.5	1.87	500	C-2V				71430
14	0.214	26.0	2.07	1,000	C-2V			6585x <sup>3</sup>	
24	0.03	1.25	0.10	5,000	C-2F	1110			
24	0.04	3.0	0.24	10,000	C-2F	1111			
24	1.2W <sup>2</sup>	6.3 <sup>2</sup>	0.50 <sup>2</sup>	1,000	C-2F	508			
24	1.4W <sup>2</sup>	8.0 <sup>2</sup>	0.64 <sup>2</sup>	1,000 <sup>2</sup>	C-2F				72410
24	2W <sup>2</sup>	8.0 <sup>2</sup>	0.64 <sup>2</sup>	3,000 <sup>2</sup>	C-2F				72420
24	3W <sup>2</sup>	23.0 <sup>2</sup>	1.83 <sup>2</sup>	500 <sup>2</sup>	C-2F				72430
28	0.04	3.8	0.30	10,000	C-2F	1199	85		
NOTES All dimensions in mm. Drawings not to scale This sheet lists a selection of available lamps Please enquire for other ratings and sizes Special options: Aged and selected Colour coated bulbs Silicone rubber filters						<sup>1</sup> @ 13.5V <sup>2</sup> @ 28V		<sup>1</sup> @ 13.5V <sup>3</sup> Xenon filled	<sup>1</sup> @ 13.5V <sup>2</sup> @ 28V <sup>4</sup> @ 14.4V

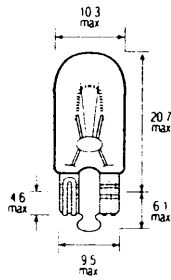
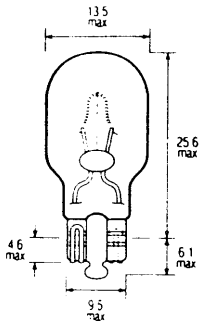
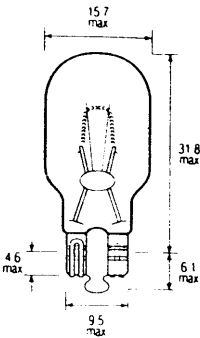
# LAMP DATA

T-2 Sub-Miniature									
Volts	Amps/ Watts	Lumens	MSCP	Life (hours)	Filament shape	T-2 7mm Wire terminal	T-2 long 7mm Wire terminal	T-2 7mm Bayonet BA7s	T-2 long 7mm Bayonet BA7s
6	0.6W	2.5	0.20	5,000	C-2R	282WT		282	
12	1.2W	5.0	0.40	5,000	C-2V	284WT		284	
12	2W	7.5min <sup>1</sup>	0.6min <sup>1</sup>	1,000 <sup>1</sup>	C-2V	281WT		281	
24	1W	3.0	0.24	7,000	C-2F	285WT		285	
24	0.05	4.2	0.34	5,000	C-2F		1065WT		1065
24	3W <sup>2</sup>	10.0	0.80	3,000	C-2F	283WT		283	
60	1.2W	2.2	0.17	5,000	CC-2F		1072WT		1072
<b>NOTES</b> All dimensions in mm. Drawings not to scale This sheet lists a selection of available lamps Please enquire for other ratings and sizes Special options: Aged and selected Colour coated bulbs Silicone rubber filters						<sup>1</sup> @ 13.5V <sup>2</sup> @ 28V Lead wire diameter 0.2	Lead wire diameter 0.2		

# LAMP DATA

T-3¼, T-4 and T-5 Wedge Base Lamps								
Volts	Amps/ Watts	Lumens	MSCP	Life (hours)	Filament shape	T-3¼ 10mm Wedge Base W2.1 x 9.5d	T-4 13mm Wedge Base W2.1 x 9.5d	T-5 16mm Wedge Base W2.1 x 9.5d
6	2W	9.5	0.76	7,000	C-2V	516		
6	0.62	48.0	3.80	30	C-2R			909
6.3	0.15	4.3	0.34	7,500	C-2R	159		
6.3	0.25	8.2	0.65	10,000	C-2R	259		
6.3	0.25	11.3	0.90	3,000	C-2R	555		
12	0.10	5.0	0.40	5,000	C-2V	1112		
12	0.125	5.5	0.44	5,000	C-2V	521		
12	2W	8.1	0.64	10,000	C-2V	522		
12	2W	13.0 <sup>1</sup>	1.03 <sup>1</sup>	1,000 <sup>1</sup>	C-2V	509		
12	2.2W	12.6 <sup>2</sup>	1.00 <sup>2</sup>	3,000 <sup>2</sup>	C-2V	510		
12	2.6W <sup>2</sup>	22.6 <sup>2</sup>	1.80 <sup>2</sup>	1,000 <sup>2</sup>	C-2V	512		
12	3W <sup>1</sup>	22.0 <sup>1</sup>	1.75 <sup>1</sup>	1,000 <sup>1</sup>	C-2V	504 <sup>6</sup>		
12	5W <sup>1</sup>	50.0 <sup>1</sup>	4.00 <sup>1</sup>	1,000 <sup>1</sup>	C-2V	501 <sup>6</sup>		
12	5W <sup>1</sup>	50.0 <sup>1</sup>	4.00 <sup>1</sup>	1,500 <sup>1</sup>	C-2V	501k <sup>4,6</sup>		
12	5W <sup>1</sup>	50.0 <sup>1</sup>	4.00 <sup>1</sup>	2,000 <sup>1</sup>	C-2V	501x <sup>5,6</sup>		
12	5W <sup>1</sup>	62.0 <sup>1</sup>	4.93 <sup>1</sup>	500 <sup>1</sup>	C-2V	1501x <sup>5</sup>		
12	7.5W <sup>2</sup>	75.0 <sup>2</sup>	6.00 <sup>2</sup>	750 <sup>2</sup>	C-2V		31270	
12	8W <sup>1</sup>	50.0 <sup>1</sup>	4.00 <sup>1</sup>	2,000 <sup>1</sup>	C-2V		31280	
12	10W <sup>1</sup>	125.0 <sup>1</sup>	10.00 <sup>1</sup>	200 <sup>1</sup>	C-2V		31210	
12.8	1.00	150.0	12.00	1,000	C-2R			912
12.8	1.40	264.0	21.00	1,000	C-2R			921
13	0.69	75.0	6.0	1,000	C-2F			906
14	0.19	12.6	1.00	4,000	C-2F	161		
14	0.24	25.0	2.00	3,000	C-2V	1530x <sup>3</sup>		
14	0.27	25.0	2.00	1,500	C-2F	194		
<b>NOTES</b> All dimensions in mm. Drawings not to scale This sheet lists a selection of available lamps See next page for higher voltages Please enquire for other ratings and sizes Special options: Aged and selected, Colour coated bulbs Silicone rubber filters						<sup>1</sup> @ 13.5V <sup>2</sup> @ 13V <sup>3</sup> @ 28V <sup>4</sup> Krypton filled <sup>5</sup> Xenon filled <sup>6</sup> 'E' approved	<sup>1</sup> @ 13.5V <sup>2</sup> @ 13V	

# LAMP DATA

<b>T-3¼, T-4 and T-5</b> <b>Wedge Base Lamps continued</b>								
Volts	Amps/ Watts	Lumens	MSCP	Life (hours)	Filament shape	T-3¼ 10mm Wedge Base W2.1 x 9.5d	T-4 13mm Wedge Base W2.1 x 9.5d	T-5 16mm Wedge Base W2.1 x 9.5d
14	0.35	38.0	3.00	1,500	C-2F	168		
24-28	2W	8.0	0.64	5,000	C-2F	513		
24	3W	22.0 <sup>3</sup>	1.75 <sup>3</sup>	1,000 <sup>3</sup>	C-2F	505 <sup>6</sup>		
24	5W	50.0 <sup>3</sup>	4.00 <sup>3</sup>	1,000 <sup>3</sup>	C-2F	507 <sup>6</sup>		
28	0.06	8.0	0.64	5,000	C-2F	656		
28	0.10	20.0	1.60	1,000	C-2F	400		
<b>NOTES</b> All dimensions in mm. Drawings not to scale This sheet lists a selection of available lamps See previous page for lower voltages Please enquire for other ratings and sizes Special options: Aged and selected, Colour coated bulbs Silicone rubber filters						<sup>1</sup> @ 13.5V <sup>2</sup> @ 13V <sup>3</sup> @ 28V <sup>4</sup> Krypton filled <sup>5</sup> Xenon filled <sup>6</sup> 'E' approved	<sup>1</sup> @ 13.5V <sup>2</sup> @ 13V	

# NEON LAMP DATA

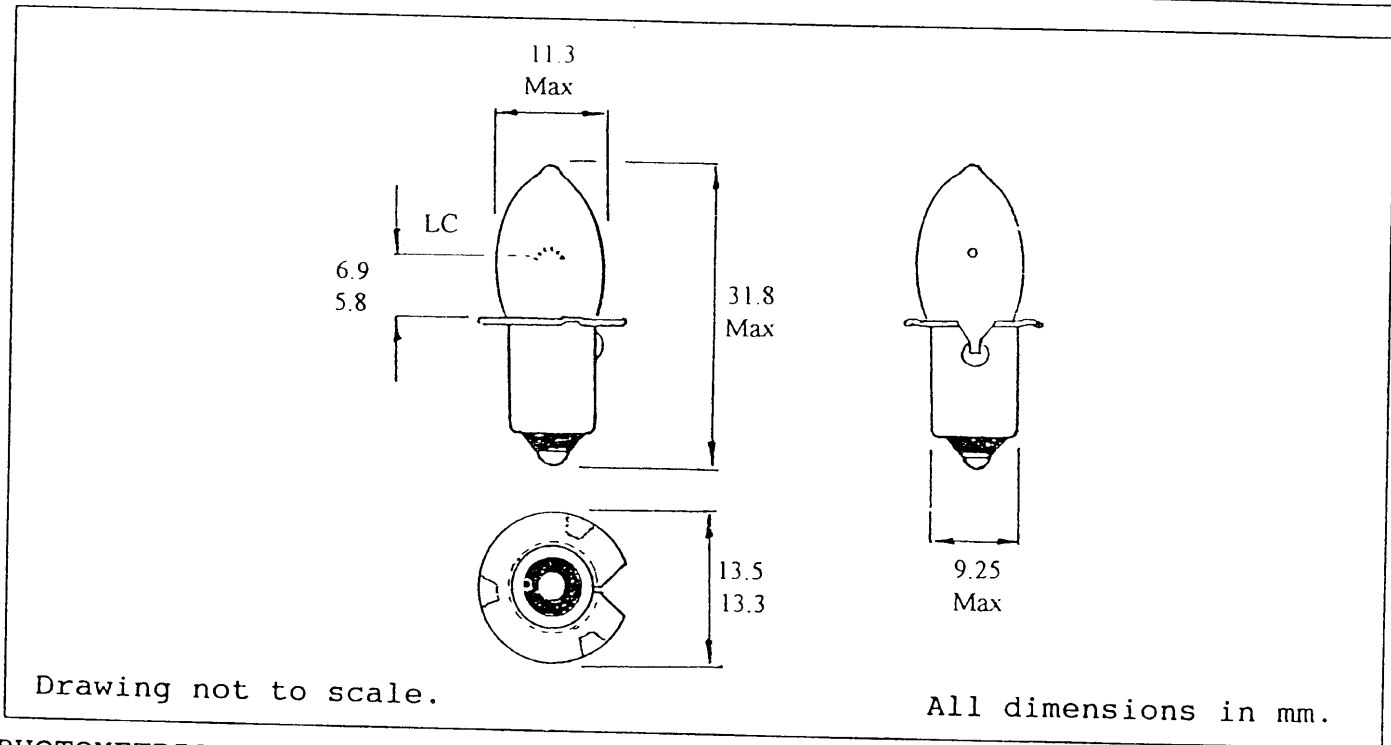
T-1¼ Sub-Miniature							
Design current (mA)	Series resistor value		Max striking voltage		Brightness level	T-1¼ 4 x 10mm Wire Terminal	T-1¼ 4mm Bi-Pin
	100-120V	220-250V	ac	dc			
0.25	220kΩ, ¼W	560kΩ, ¼W	65	90	standard	2ML	2MLBP
0.6	82kΩ, ¼W	270kΩ, ¼W	95	135	high	1MH	1MHBP
1.8	33kΩ, ¼W	100kΩ, ¼W	95	135	ultra-high	1MUH	
<b>NOTES</b> All dimensions in mm. Drawings not to scale This sheet lists a selection of available lamps Please enquire for other ratings and sizes Custom assembly service available – see Assembly data sheet High and ultra-high brightness types are not suitable for 100-120V dc operation						Resistors should be ±5% tolerance types (eg carbon film) and have a voltage rating adequate for the supply voltage being used Resistor wattages quoted are minima and higher wattage types may be used Lead wires should not be bent or soldered closer than 3mm from the glass seal	

PRODUCT DATA SHEET

PART No.

KPRxxx

TYPE	SIZE	RATING	DESCRIPTION
INCANDESCENT	B-3 1/2	(as table)	KRYPTON PRE-FOCUS (torch)



PHOTOMETRIC DATA

PART No	TEST VOLTS	CURRENT (A)			LIGHT OUTPUT (Lm)			FIL SHAPE	LIFE (Hrs)
		Min.	Nom.	Max.	Min.	Nom.	Max.		
KPR2	2.4	0.45	0.50	0.55	8.2	11.0	13.8	C-2R	15
KPR102	2.4	0.63	0.70	0.77	12.0	16.0	20.0	C-2R	15
KPR131	2.4	0.75	0.835	0.92	13.8	18.5	23.2	C-2R	15
KPR7	3.6	0.27	0.30	0.33	8.0	10.6	13.2	C-2R	30
KPR103	3.6	0.63	0.70	0.77	25.0	34.0	43.0	C-2R	15
KPR15	4.75	0.45	0.50	0.55	24.0	32.0	40.0	C-2R	20
KPR113	4.8	0.63	0.70	0.77	40.0	50.0	60.0	C-2R	15
KPR12	5.4	0.45	0.50	0.55	28.0	38.0	45.0	C-2R	15

NOTES

- 1) Krypton gas-filling.
- 2) Nickel plated pre-focus cap, type P13.5s to BS EN60061-1, sheet 7004-40-2. (Side solder where present not to exceed 3mm dia.).
- 3) Filament to be central within bulb. (+/- 1.0mm).
- 4) Part No. to be stamped on cap shell with optional voltage rating.

# LED LAMP DATA

## 3mm and 5mm Lens Diameter Resistored types

Part No	Emitted colour	Material	Wavelength (nm)	Lens colour	Luminous intensity (mcd) If=10mA min max	Viewing angle	Dimensions
VL-934ID-5V	Super Red	GaAsP/GaP	625	Red-Diffused	12.5 50.0	60°	
VL-934GD-5V	Green	GaP	565	Green-Diffused	8.0 32.0	60°	
VL-934YD-5V	Yellow	GaAsP/GaP	590	Yellow-Diffused	8.0 32.0	60°	
VL-934SGD-5V	Green	GaP	565	Green-Diffused	30.0 60.0	60°	
VL-934SRD-5V	Hyper Red	GaAlAs	660	Red-Diffused	70.0 300.0	60°	
VL-934ID-12V	Super Red	GaAsP/GaP	625	Red-Diffused	12.5 50.0	60°	
VL-934GD-12V	Green	GaP	565	Green-Diffused	8.0 32.0	60°	
VL-934YD-12V	Yellow	GaAsP/GaP	590	Yellow-Diffused	8.0 32.0	60°	
VL-934SGD-12V	Green	GaP	565	Green-Diffused	30.0 60.0	60°	
VL-934SRD-12V	Hyper Red	GaAlAs	660	Red-Diffused	70.0 300.0	60°	
VL-53ID-5V	Super Red	GaAsP/GaP	625	Red-Diffused	20.0 80.0	60°	
VL-53GD-5V	Green	GaP	565	Green-Diffused	5.0 32.0	60°	
VL-53YD-5V	Yellow	GaAsP/GaP	590	Yellow-Diffused	5.0 32.0	60°	
VL-53SGD-5V	Green	GaP	565	Green-Diffused	30.0 60.0	60°	
VL-53SRD-5V	Hyper Red	GaAlAs	660	Red-Diffused	100.0 500.0	60°	
VL-53ID-12V	Super Red	GaAsP/GaP	625	Red-Diffused	20.0 80.0	60°	
VL-53GD-12V	Green	GaP	565	Green-Diffused	5.0 32.0	60°	
VL-53YD-12V	Yellow	GaAsP/GaP	590	Yellow-Diffused	5.0 32.0	60°	
VL-53SGD-12V	Green	GaP	565	Green-Diffused	30.0 60.0	60°	
VL-53SRD-12V	Hyper Red	GaAlAs	660	Red-Diffused	100.0 500.0	60°	

### NOTES

All dimensions in mm. Drawings not to scale.

Please see General Technical Data section for more details on LED lamp characteristics.

This sheet lists a selection of available lamps.

Please enquire for other sizes, shapes, colours, etc.