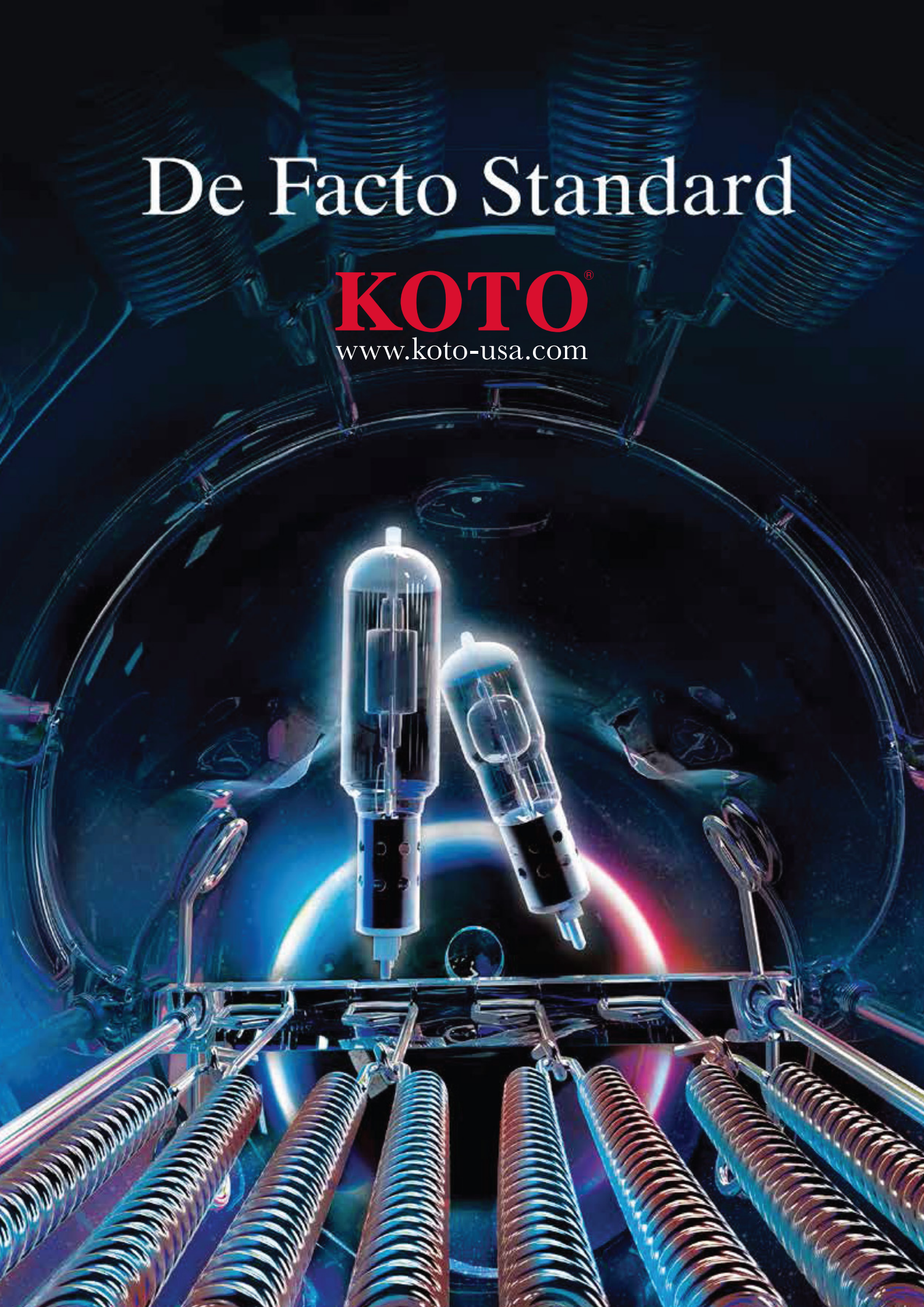


# De Facto Standard

# KOTO<sup>®</sup>

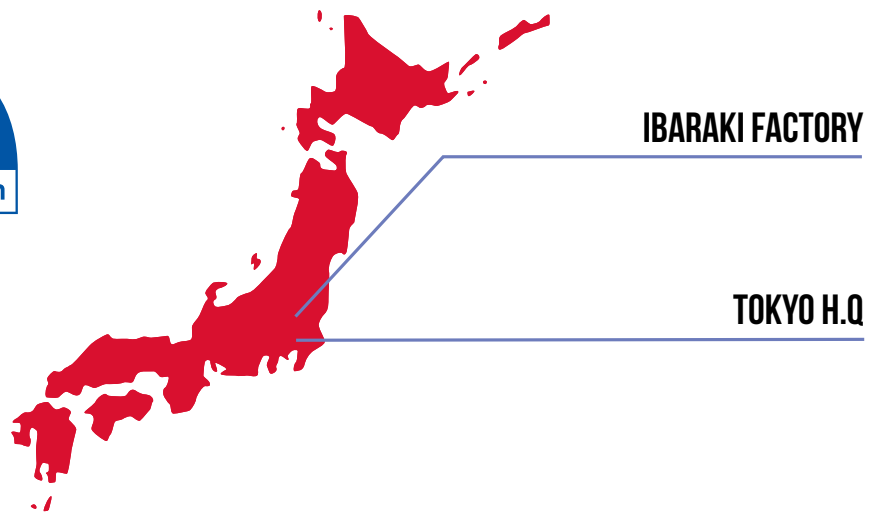
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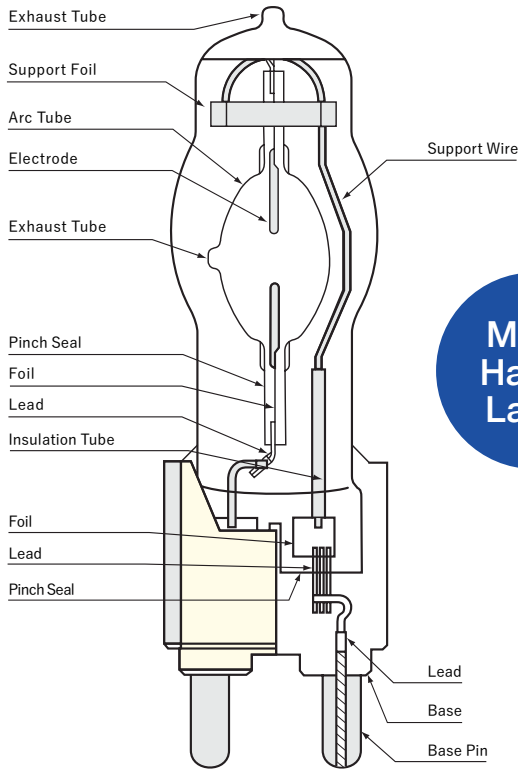




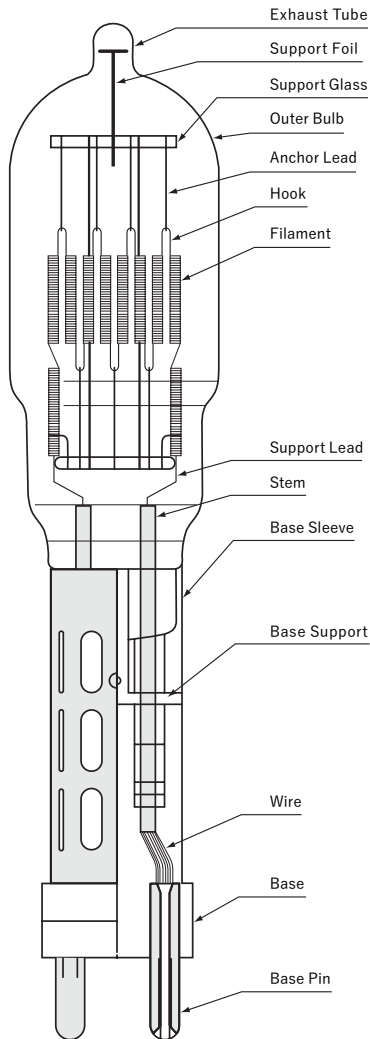
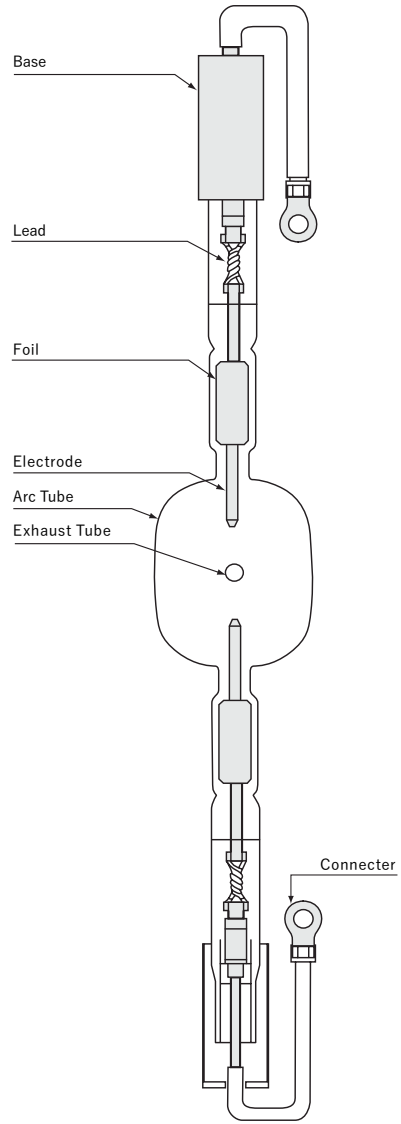
# Koto Electric has a 70 years history of manufacturing electronic devices and lamps

Founded in 1947, Koto was the first to develop Japanese metal halide lamps in 1979 followed by the first 20KW halogen lamp used for the motion picture and entertainment industries, and their bulbs are used on sets world-wide. Koto was the first manufacturer to block UV rays from the metal halide lamps. These bulbs are designated UV-Block, and have a 95% reduction of UVB and UVC.

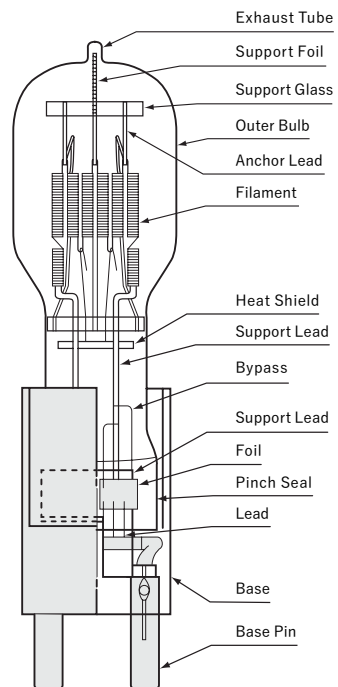


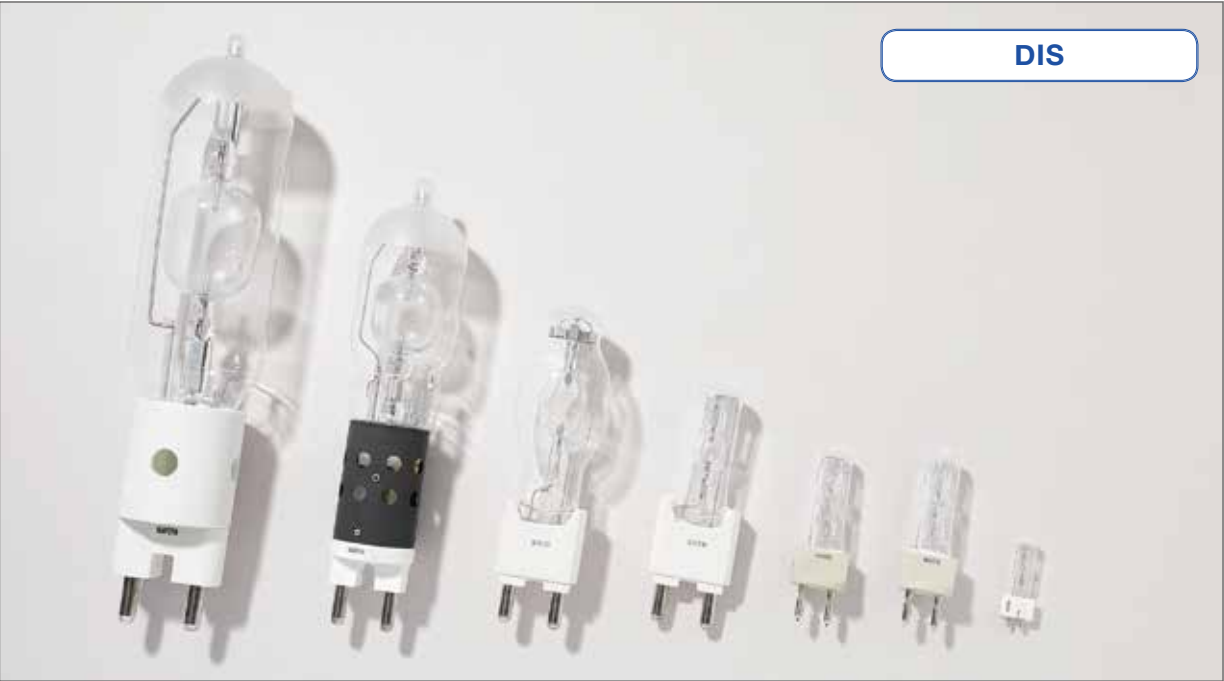


**Metal Halide Lamp**



**Halogen Lamp**





Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Dimensions (mm)			Schematic	Base
								Diameter	Total Length	Luminous Center		
DIS-1H	80	125	ANY	6,000	8,400	>80	200	17	75	39	Fig-1	GZX9.5
DIS-2H	70	200	ANY	6,000	15,000	>90	200	20	80	39	Fig-1	GZY9.5
DIS-4H	70	400	ANY	6,000	33,000	>90	750	23	110	60	Fig-1	GZZ9.5
DIS-6H	95	575	ANY	6,000	49,000	>90	1000	30	145	70	Fig-2	G22
DIS-8H	95	800	ANY	6,000	70,000	>95	1000	31	70	145	Fig-2	G22
DIS-12H	100	1,200	ANY	6,000	110,000	>90	750	42	200	107	Fig-3	G38
DIS-18H	150	1,800	ANY	6,000	160,000	>90	750	42	200	107	Fig-3	G38
DIS-25H	115	2,500	ANY	6,000	220,000	>90	500	60	240	127	Fig-4	G38
DIS-40H	200	4,000	ANY	6,000	380,000	>90	500	75	255	142	Fig-4	G38
DIS-60H	120	6,000	ANY	6,000	600,000	>90	300	85	360	210	Fig-5	G38
DIS-90H	165	9,000	ANY	6,000	875,000	>90	400	85	360	210	Fig-5	G38
DIS-120H	160	12,000	ANY	6,000	1,100,000	>90	250	103	450	255	Fig-5	G38
DIS-180H VIVID	225	18,000	ANY	6,000	1,650,000	>90	350	103	470	260	Fig-6	G51

Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Dimensions (mm)			Schematic	Base
								Diameter	Total Length	Luminous Center		
DIS-2H UV-Block	70	200	ANY	6,000	15,000	>90	200	20	39	80	Fig-1	GZY9.5
DIS-4H UV-Block	70	400	ANY	6,000	33,000	>95	750	23	60	110	Fig-1	GZZ9.5
DIS-6H UV-Block	95	575	ANY	6,000	49,000	>90	1000	31	70	145	Fig-2	G22
DIS-6H SPOTLIGHT UV-Block	95	575	ANY	6,000	49,000	>90	1000	30	70	145	Fig-2	G22
DIS-8H UV-Block	95	800	ANY	6,000	70,000	>95	1000	31	70	145	Fig-2	G22
DIS-12H UV-Block	100	1,200	ANY	6,000	110,000	>90	750	42	107	200	Fig-3	G38
DIS-16H UV-Block	150	1,600	ANY	6,000	140,000	>90	750	40	85	175	Fig-2	G22

Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Dimensions (mm)			Schematic	Base
								Diameter	Total Length	Luminous Center		
DIS-25H UV-Block	115	2,500	ANY	6,000	220,000	>90	500	60	127	240	Fig-4	G38
DIS-40H UV-Block	200	4,000	ANY	6,000	380,000	>90	500	75	142	255	Fig-4	G38
DIS-60H UV-Block	120	6,000	ANY	6,000	540,000	>90	300	85	210	360	Fig-5	G38
DIS-120H UV-Block	160	12,000	ANY	6,000	1,100,000	>90	250	103	255	450	Fig-5	G38

## Schematic

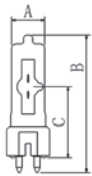


Fig-1



Fig-2

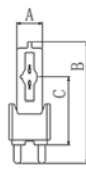


Fig-3

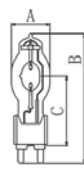


Fig-4

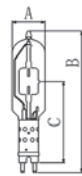


Fig-5

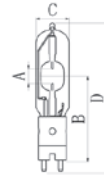


Fig-6

## Base Figure



GZX9.5



GZY9.5



GZZ9.5



G22



G38

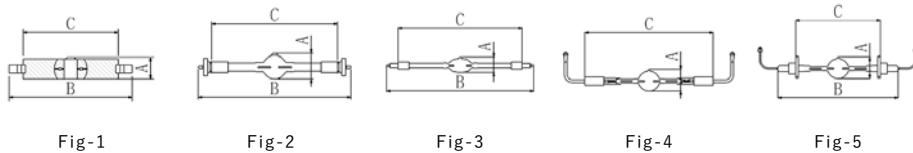


G51

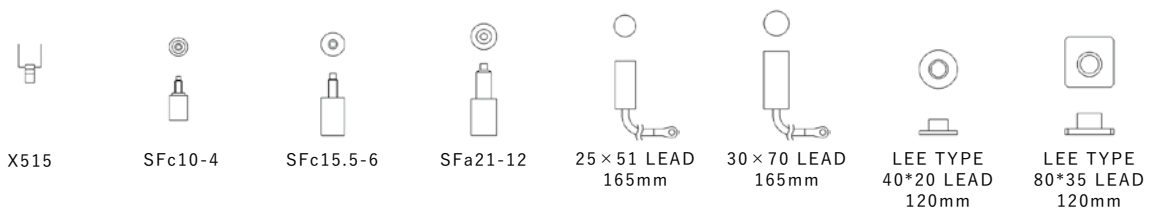


Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Dimensions (mm)			Schematic	Base
								Diameter	Total Length	Luminous Center		
DI-2	80	200	Horizontal ± 15°	6,000	16,000	>90	300	14	75	58	Fig-1	X515
DI-6	95	575	Horizontal ± 15°	6,000	49,000	>90	750	24	145	115	Fig-2	SFc10-4
DI-12	100	1,200	Horizontal ± 15°	6,000	110,000	>90	750	30	220	180	Fig-2	SFc 15.5-6
DI-25	115	2,500	Horizontal ± 15°	6,000	240,000	>90	500	37	355	290	Fig-3	SFa21-12
DI-40	200	4,000	Horizontal ± 15°	6,000	410,000	>90	500	42	405	340	Fig-3	SFa21-12
DI-60	125	6,000	Horizontal ± 15°	6,000	570,000	>90	300	56	—	450	Fig-4	25 × 51 LEAD 165mm
DI-120	160	12,000	Horizontal ± 15°	6,000	1,100,000	>90	300	78	—	470	Fig-4	30 × 70 LEAD 165mm
DI-180	225	18,000	Horizontal ± 15°	6,000	1,650,000	>90	300	78	—	500	Fig-4	30 × 70 LEAD 165mm
DI-240	280	24,000	Horizontal ± 15°	6,000	2,200,000	>90	400	86	—	500	Fig-4	30 × 70 LEAD 165mm

### Schematic



### Base Figure







## JAPAN QUALITY

From the uncompromising attitude towards craftsmanship,  
a light that is the utmost closest to sunlight was born.

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EVENT



Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Dimensions (mm)			Schematic	Base
								Diameter	Total Length	Luminous Center		
KSR700SA /60	70	700	ANY	6,000	58,000	70	500	17	85	39	Fig-6	GY9.5
KSR700/50/P28 EasyFit	70	700	ANY	5,000	58,000	75	750	18	112	56	Fig-1	PGJX 28
KSR700/60/P28 EasyFit	70	700	ANY	6,000	58,000	90	750	18	112	56	Fig-1	PGJX 28
KSR700/72/P28 EasyFit	70	700	ANY	7,200	50,000	76	750	18	112	56	Fig-1	PGJX 28
KSR1000/60/P36 EasyFit	82	1,000	ANY	6,000	90,000	90	750	21	112	56	Fig-1	PGJX 36
KSR1000/72/P36 EasyFit	82	1,000	ANY	7,200	80,000	85	750	21	112	56	Fig-1	PGJX 36
KSR1500/60/P50 EasyFit	100	1,500	ANY	6,000	130,000	90	750	25	130	65	Fig-2	PGJX 50
KSR1700/60/P28 EasyFit	85	1,700	ANY	6,000	160,000	90	750	25	120	60	Fig-1	PGJX 28
KSR1700/60/P50 EasyFit	100	1,700	ANY	6,000	160,000	90	750	25	130	65	Fig-2	PGJX 50

Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Dimensions (mm)			Schematic	Base
								Diameter	Total Length	Luminous Center		
KSR575S/DE/70	95	575	ANY	7,000	40,300	80	750	20	138	115	Fig-3	SFc 10-4
KSR700S/DE/60	70	700	ANY	6,000	59,000	75	750	18	138	115	Fig-3	SFc 10-4
KSR700S/DE/72	70	700	ANY	7,200	59,000	75	750	18	138	115	Fig-3	SFc 10-4
KSR1200S/DE/60	100	1,200	ANY	6,000	110,000	90	750	22	138	115	Fig-3	SFc 10-4
KSR1200S/DE/72	100	1,200	ANY	7,200	110,000	75	750	21	138	115	Fig-3	SFc 10-4
KSR1500S/DE/60	115	1,500	ANY	6,000	145,000	90	750	22	138	115	Fig-3	SFc 10-4



Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Dimensions (mm)			Schematic	Base
								Diameter	Total Length	Luminous Center		
KSD250/2/SE	94	250	ANY	9,000	18,000	60	2000	23	108	55	Fig-4	GY9.5
KSR575/2/SE	97	575	ANY	8,000	49,000	80	1000	29	125	65	Fig-4	GX9.5
KSR700/2/SE	70	700	ANY	7,200	55,000	70	1000	29	155	75	Fig-5	G22
KSR1200SA/60	100	1,200	ANY	6,000	96,000	75	750	26	133	59	Fig-7	GY22
KSR1200/2/SE	100	1,200	ANY	7,200	110,000	75	800	40	175	85	Fig-5	G22

Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Dimensions (mm)			Schematic	Base
								Diameter	Total Length	Luminous Center		
DIS-6H SPOTLIGHT	95	575	ANY	6,000	49,000	>90	1000	30	145	70	Fig-5	G22
DIS-6H SPOTLIGHT UV-Block	95	575	ANY	6,000	49,000	>90	1000	30	145	70	Fig-5	G22

Item	Voltage	Wattage	Burning Direction	CCT (K)	Lumens (Lm)	CRI (Ra)	Life (hrs)	Schematic
KSD280/78 Diamond	75	280	ANY	7,800	16,800	>75	2000	Fig-8

## Schematic

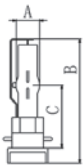


Fig-1

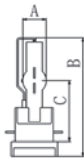


Fig-2

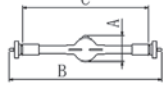


Fig-3



Fig-4



Fig-5



Fig-6

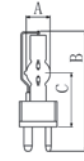


Fig-7

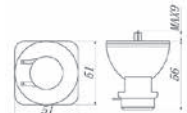


Fig-8

## Base Figure



GY9.5



PGJX28



PGJX36



PGJX50



SF<sub>c</sub>10-4



GX9.5



G22



GY22

CP | KP | DPY | DTY



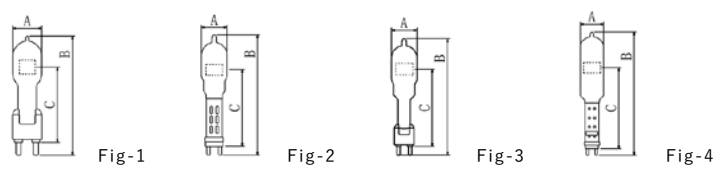
Item	Voltage	Wattage	CCT (K)	Lumens (Lm)	Life (hrs)	Dimensions (mm)			Schematic	Base
						diameter	Total Length	Luminous Center		
CP29	220-240	5000	3200	135000	350	65	280	165	Fig-1	G38

Item	Voltage	Wattage	CCT (K)	Lumens (Lm)	Life (hrs)	Dimensions (mm)			Schematic	Base
						diameter	Total Length	Luminous Center		
DPY	120	4900	3200	142100	200	65	270	165	Fig-1	G38

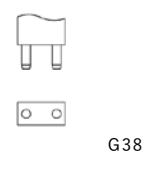
Item	Voltage	Wattage	CCT (K)	Lumens (Lm)	Life (hrs)	Dimensions (mm)			Schematic	Base
						diameter	Total Length	Luminous Center		
DTY	120	10000	3200	290000	500	85	410	254	Fig-2	G38

Item	Voltage	Wattage	CCT (K)	Lumens (Lm)	Life (hrs)	Dimensions (mm)			Schematic	Base
						diameter	Total Length	Luminous Center		
KP83/220V	220-230	10000	3200	280000	500	85	405	254	Fig-3	G38
KP83/240V	240	10000	3200	28000	500	85	405	254	Fig-3	G38
KP120H/120V	120	12000	3400	400000	150	85	410	254	Fig-2	G38
KP120H/230V	220-230	12000	3400	400000	130	85	410	254	Fig-2	G38
KP120H/240V	240	12000	3300	360000	130	85	410	254	Fig-2	G38
KP200/208V	208	20000	3200	580000	400	103	560	354	Fig-4	G38
KP200/220V	220-230	20000	3200	580000	400	103	560	354	Fig-4	G38
KP200/240V	240	20000	3200	580000	400	103	560	354	Fig-4	G38
KP240H/220V	220-230	24000	3400	800000	150	103	560	354	Fig-4	G38
KP240H/240V	240	24000	3400	800000	150	103	560	354	Fig-4	G38

**Schematic**



**Base Figure**



### Warning

- Be sure to use the lamp with a suitable lighting appliance (with appropriate socket, wattage, voltage, etc.). Failure to comply with this can result in shortened service life, injury caused breakage, overheating of appliances or other problems.
- Due to the high internal pressure, avoid dropping, hitting, applying excessive force or scratching the lamp (particularly be careful when cleaning the lighting appliances). Glass fragments will be scattered if the bulb is broken, causing injury.
- Do not cover the lamp with paper or other objects and do not bring it close to flammable objects of any kind due to the danger of causing a fire.
- Be sure to use the lamp in the assigned direction. Lighting in a direction other than the assigned one is possible only for a short period of time. However, even during this short period of time, make sure to keep the lamp-socket below the lamp. Failure to do this can cause injury or breakage of lamp.
- Be sure to disconnect the power supply before fitting, detaching, or cleaning the appliance. Failure to comply with this can result in electric shock.
- Never touch the lamp while it is burning. Even after the light is put out, do not touch it until the temperature drops to a safe level. Failure to comply with this can result in burns and injuries.
- Never use in an environment where combustion or ignition may occur (exposure to gasoline, thinner, lacquer, dust etc.). Failure to comply with this can result in a fire or explosion.
- Do not look directly at the lighted lamp for an extended period of time as it can cause eye discomfort, or in worse case, impairment of eyesight.
- Never try to burn the lamp if the front glass of the lighting appliance is removed or broken, or if the outer tube is broken. Failure to comply with this can cause eye/skin trouble due to ultraviolet rays emitted from the breakage of the appliance.
- With studio-use metal halide lamps, be sure to choose an encapsulated type that provides tempered glass or metal guard. Breakage, if it occurs, can cause bodily injury.

### Caution

- Never touch the lamp directly with your bare hands. If the lamp is stained and then burned, the glass bulb's performance will deteriorate, resulting in breakage or a shortened service life.
- Avoid exposure to rain, water drops, or a high humidity environment as it can result in breakage of the lamp.
- Do not apply paints to the lamp. It can cause overheating of the lamp, resulting in breakage.
- Avoid light utilization within close proximity (the designated irradiated area) of the fixture, as it can result in discoloration or damage of the irradiated subject or even fire. More seriously, it can result in burns or injuries.
- Be sure to fit the lamp tightly into the socket. Inappropriate fitting can result in the lamp falling out of the lighting device, overheating due to contact failure, or fuming.
- Adhere to the specified voltage. Use at a voltage higher than the specified one can result in a shorter service life and even breakage.
- Avoid using the lamp with an ordinary lighting device in an acidic or corrosive environment. This can result in electrical leakage or falling in a corrosive environment.
- Avoid using the lamp with an ordinary lighting device in a dusty place. This can result in overheating of the device.
- Never use two or more lamps connected in series. This can breakage or a shortened service life.
- Check the socket contacts for any damages. Presence of any damages can cause non-lighting or overheating.
- Replace a lamp that has exceeded the rated service life; otherwise it may result in breakage of the lamp.
- When fitting and detaching the lamp, be sure to use the correct base type. Do not apply excessive force or shock to the lamp.
- Do not break used lamp for waste disposal, as glass fragments will be scattered, causing injury. For waste disposal, be sure to obey the relevant laws and regulations.
- In case of abnormal behavior, such as repeated blinking, immediately cut off the power supply and change the electric bulb. Failure to do this can cause overheating or fuming.
- Do not apply vibration or shock to the bulb. Also do not use in environments that are exposed to vibration or shock. Failure to observe this can cause breakage or lamps falling down from the lighting devices.
- Replace the lamp when the burning hours reach the average service life. Excessive use of a lamp can cause recrystallization (opaqueness) of the quartz glass, sharply increasing the potential risk of bursting.



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