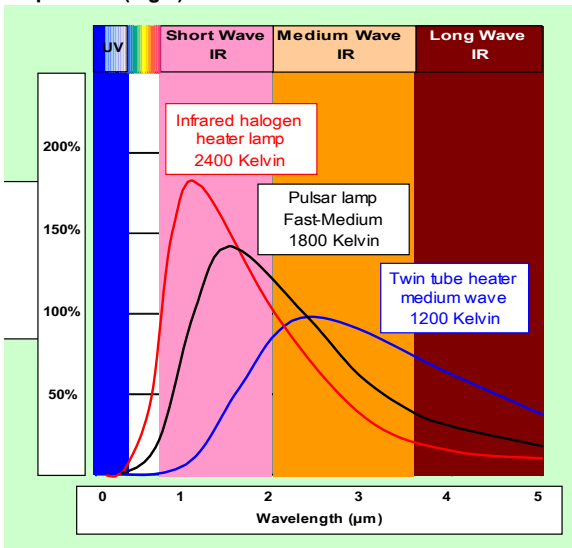


Infrared Halogen Heater Lamp

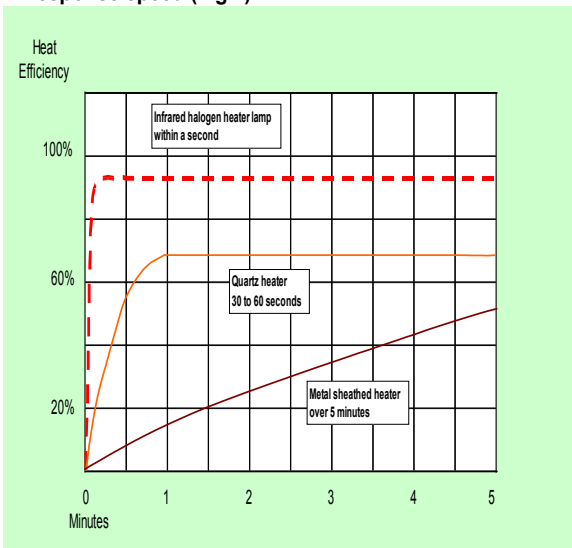


TOSHIBA infrared halogen heater lamps are powerful heat sources comprising a finely coiled tungsten filament surrounded by high-purity tubular quartz glass and a kind of halogen gas-filled lamp. Halogen cycle ensures constant infrared efficiency all the lifetime with preventing the quartz glass tube from blackening. TOSHIBA infrared halogen heater lamps match to numerous kinds of industrial process with benefits of instant & contact-less heat, clean, odorless, compact, high-power, and long-life.

Spectrum (Fig.1)



Response speed (Fig.2)



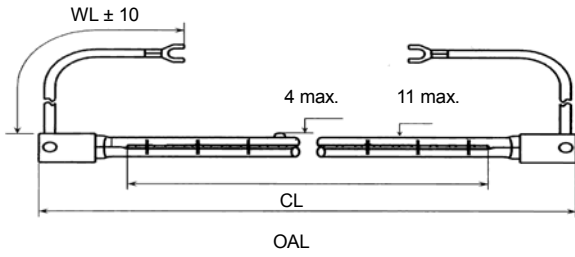
Benefits and features

- z Long life: 5000h on average..
- z High speed: within a second to switch on.
- z High efficiency: more than 85% heat efficiency of full power
- z High power density: up to 110 W / cm
- z High controllability: neither ballast nor special circuits are necessary for basic usage.
- z No air draughts: because of radiation (the same as solar energy)
- z Clean and odorless: no risk of contamination over environment or target object to be heated.
- z Extensive assortment: many types of voltage, wattage, length, base, wire-harnesses and horizontal or universal burning position are available.
- z Flexible: special lamp designing service on demand is available.

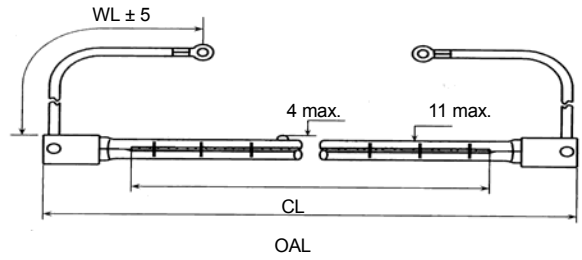
Application area

- Paint drying
- Pre-heating of PET perform
- Silicon wafer manufacturing process in Semiconductor
- Drying process in paper mill
- Plastics thermoforming
- Fusing printing ink
- And various kind of drying processes

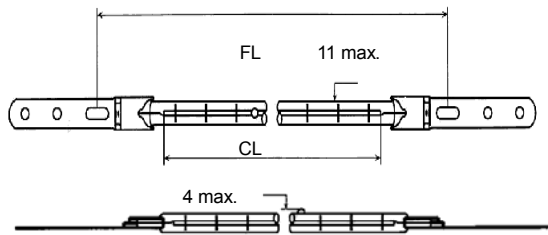
Type 1



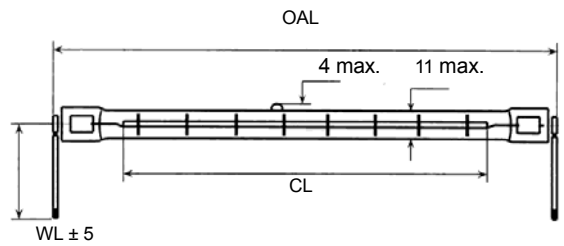
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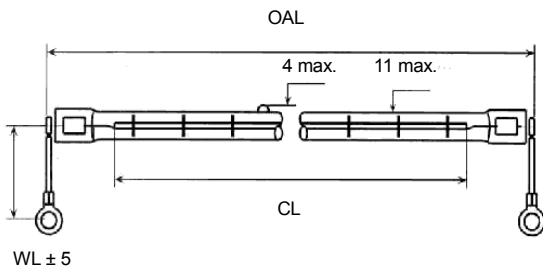
Type 3



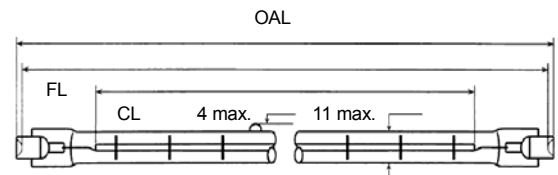
Type 4

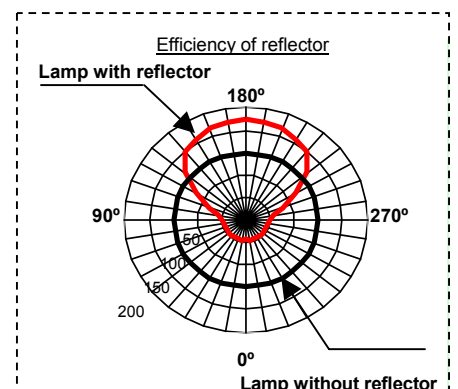
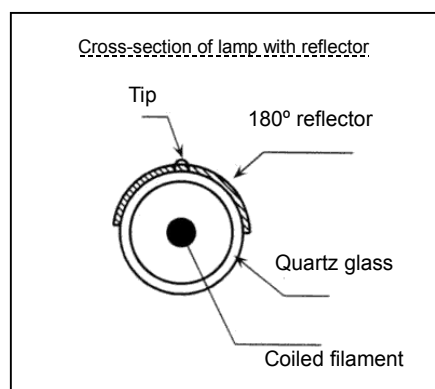
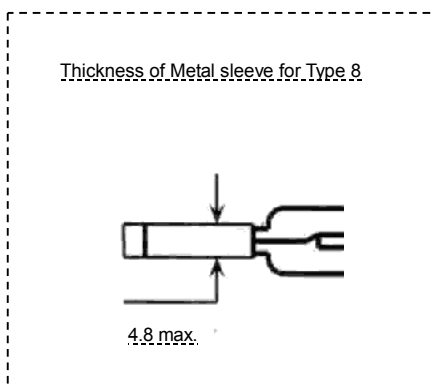
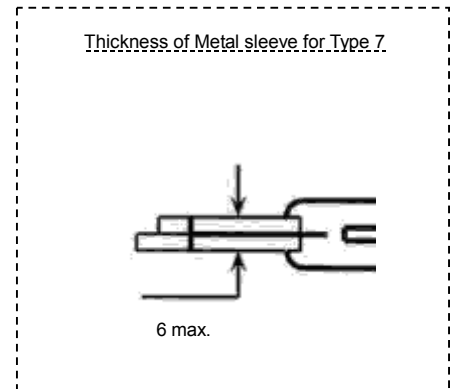
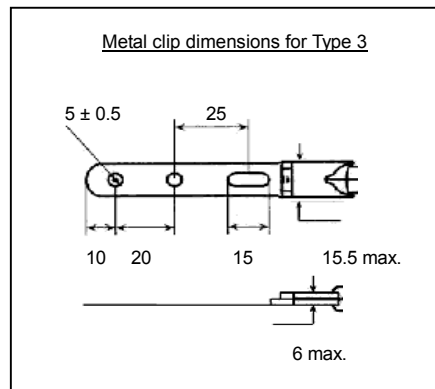
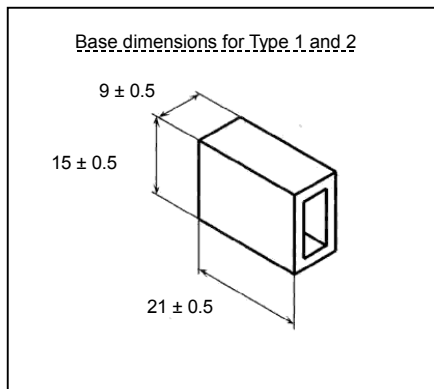
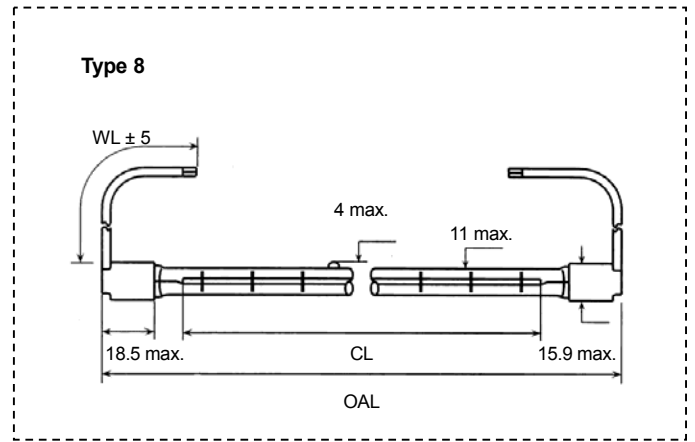
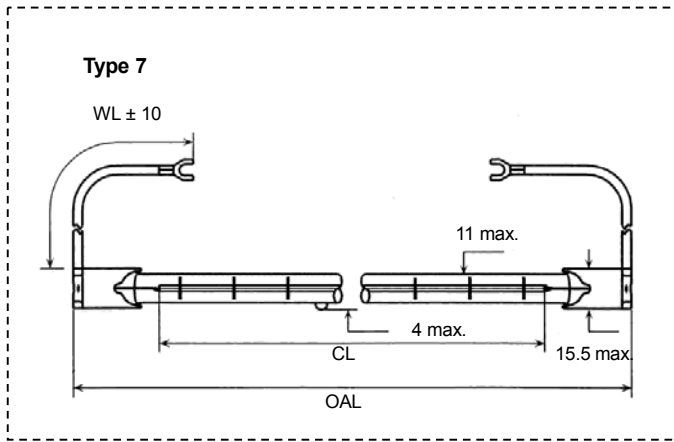


Type 5



Type 6





Part code	Watts (W)	Volts (V)	Drawing	Wire Length WL(mm)	Overall length OAL (mm)	Fixation length FL (mm)	Heating length CL (mm)	Color temp. (K)	Tube	Burning position	Ave. Life	Ordering code	Alternative designation
300 WATTS COLOR TEMP. 2800 KELVIN													
JHS 230V 300W 60 RSH	300	230 - 240	TYPE 6	-	-	117. 6± 1.5	60 ± 5	2800	Clear	Horizontal	1000	EM-352	13908R QIR240-300/E
500 WATTS COLOR TEMP. 2400 - 2500 KELVIN													
JHS 240V 500W 160 RH	500	230 - 240	TYPE 6	-	-	210 ± 1.5	160 ± 5	2400	Clear	Horizontal	5000	EM-182	13169R QIR240-500/E
JHS 235V 500W 165 BFH	500	230 - 240	TYPE 1	210 ± 10	226 ± 2	-	165 ± 5	2500	Clear	Horizontal	5000	EM-323	13169Z QIR240-500/D
JHC 235V 500W 165 BFH	500	230 - 240	TYPE 1	210 ± 10	226 ± 2	-	165 ± 5	2500	Reflector	Horizontal	5000	EM-324	13169Z/98 QIR240-500/ZD
700 WATTS COLOR TEMP. 2620 KELVIN													
JHS 240V 700W 150 BFH1	700	230 - 240	TYPE 1	210 ± 10	210 ± 2	-	150 ± 5	2620	Clear	Horizontal	5000	RZ-209	13842Z -
1000 WATTS COLOR TEMP. 2400 KELVIN													
JHC 235V 1000W 272 BFH	1000	230 - 240	TYPE 1	210 ± 10	352 ± 2	-	272 ± 5	2400	Reflector	Horizontal	5000	EM-326	13195Z/98 QIR240-1000/ZD
JHS 235V 1000W 272 JH	1000	230 - 240	TYPE 3	-	-	-	272 ± 5	2400	Clear	Horizontal	5000	2JHS020	13195X QIR240-1000/B
JHC 235V 1000W 272 JH	1000	230 - 240	TYPE 3	-	-	370 ± 10	272 ± 5	2400	Reflector	Horizontal	5000	2JHC008	13195X/98 QIR240-1000/ZB
JHS 235V 1000W 272 JU	1000	230 - 240	TYPE 3	-	-	370 ± 10	272 ± 5	2400	Clear	Universal	5000	2JHS056	13713X QIR240-1000/VB
JHC 235V 1000W 272 JU	1000	230 - 240	TYPE 3	-	-	370 ± 10	272 ± 5	2400	Reflector	Universal	5000	EM-028	13713X/98 QIR240-1000/ZB
JHC 235V 1000W 272 BFU	1000	230 - 240	TYPE 1	210 ± 10	352 ± 2	-	272 ± 5	2400	Reflector	Universal	5000	2JHC015	13713Z/98 QIR240-1000/VZD
JHT 240V 1000W 254 MH	1000	230 - 240	TYPE 8	146 ± 5	351 MAX	-	254 ± 5	2400	Translucent	Horizontal	5000	JHT001	1000T3 QIR240-1000/TS
1200 WATTS COLOR TEMP. 2700 KELVIN													
JHC 144V 1200W 155 JCH	1200	144	TYPE 7	150 ± 10	219 ± 2	-	155 ± 5	2700	Reflector	Horizontal	5000	RZ-212	13561Y/00 QIR144-1200/S
JHC 144V 1200W 155 BFH	1200	144	TYPE 1	150 ± 10	225 ± 2	-	155 ± 5	2700	Reflector	Horizontal	5000	EM-343	- QIR144-1200/ZD
JHC 235V 1200W 155 BFH1	1200	230 - 240	TYPE 1	150 ± 10	225 ± 2	-	155 ± 5	2700	Reflector	Horizontal	5000	EM-354	14134Z/98 QIR240-1200/ZD
1600 WATTS COLOR TEMP. 2400 - 2700 KELVIN													
JHC 144V 1600W 155 JCH	1600	144	TYPE 8	150 ± 10	219 ± 2	-	155 ± 5	2700	Reflector	Horizontal	5000	RZ-213	13561Y/00 QIR144-1600/S
JHC 144V 1600W 155 BFH	1600	144	TYPE 1	150 ± 10	225 ± 2	-	155 ± 5	2700	Reflector	Horizontal	5000	EM-337	- QIR144-1600/ZD
JHC 235V 1600W 155 BFH1	1600	230 - 240	TYPE 1	150 ± 10	225 ± 2	-	155 ± 5	2700	Reflector	Horizontal	5000	EM-354	14135Z/98 QIR240-1600/ZD
JHS 208V 1600W 406 MH	1600	208	TYPE 8	146 ± 5	503 MAX	-	406 ± 5	2500	Clear	Horizontal	5000	EM-534	1600T3/CL 208V QIR208-1600/S
JHS 240V 1600W 406 MH	1600	230 - 240	TYPE 8	146 ± 5	503 MAX	-	406 ± 5	2400	Clear	Horizontal	5000	EM-530	1600T3/CL QIR240-1600/S
JHS 277V 1600W 406 MH	1600	277	TYPE 8	146 ± 5	503 MAX	-	406 ± 5	2500	Clear	Horizontal	5000	EM-530	1600T3/CL 277V QIR277-1600/S
2000 WATTS COLOR TEMP. 2400 - 2700 KELVIN													
JHC 235V 2000W 280 BFH2	2000	230 - 240	TYPE 1	210 ± 10	352 ± 2	-	280 ± 5	2400	Reflector	Horizontal	5000	EM-365	14103Z/98 QIR240-2000/ZD
JHS 235V 2000W 280 TU	2000	230 - 240	TYPE 5	NOTE	350 ± 2	-	280 ± 5	2400	Clear	Universal	5000	JHS061	13168V QIR240-2000/VG
JHS 235V 2000W 280 JU	2000	230 - 240	TYPE 3	-	-	370 ± 10	280 ± 5	2400	Clear	Universal	5000	2JHS031	13168X QIR240-2000/VB
JHC 235V 2000W 280 BFU	2000	230 - 240	TYPE 1	210 ± 10	352 ± 2	-	280 ± 5	2400	Reflector	Universal	5000	2JHC016	13168Z/98 QIR240-2000/VZD
JHC 235V 2000W 280 BFH4	2000	230 - 240	TYPE 1	210 ± 10	355 ± 2	-	280 ± 5	2700	Reflector	Horizontal	5000	2JHC027	-
JHS 240V 2000W 254 MU	2000	230 - 240	TYPE 8	146 ± 5	361 MAX	-	254 ± 5	2400	Clear	Universal	5000	JHS002	2MT3/CL/HT/ABO QIR240-2000/VS
JHS 277V 2000W 254 MH	2000	277	TYPE 8	146 ± 5	361 MAX	-	254 ± 5	2450	Clear	Horizontal	5000	EM-544	- QIR277-2000/S
JHC 230V 2000W 500 BFH	2000	230 - 240	TYPE 1	210 ± 10	658 ± 2	-	500 ± 5	2400	Reflector	Horizontal	5000	RZ-200	13214Z/98 -
JHS 400V 2000W 410 JU	2000	400	TYPE 3	-	-	508 ± 10	410 ± 5	2400	Clear	Universal	5000	2JHS032	13765X QIR400-2000/VB
JHC 400V 2000W 410 JU	2000	400	TYPE 3	-	-	508 ± 10	410 ± 5	2400	Reflector	Universal	5000	EM-206	13765X/98 QIR400-2000/VZB
2200 WATTS COLOR TEMP. 2400 KELVIN													
JHS 235V 2200W 283 TU1	2200	230 - 240	TYPE 5	160 ± 5	360 ± 2	-	283 ± 5	2400	Clear	Universal	5000	EM-082	-
2500 WATTS COLOR TEMP. 2400 - 2700 KELVIN													
JHC 235V 2500W 280 BFH1	2500	230 - 240	TYPE 1	210 ± 10	355 ± 2	-	280 ± 5	2700	Reflector	Horizontal	5000	EM-480	-
JHS 235V 2500W 280 TU	2500	230 - 240	TYPE 5	NOTE	350 ± 2	-	280 ± 5	2400	Clear	Universal	5000	JHS003	-
JHC 400V 2500W 280 BH	2500	400	TYPE 1	210 ± 10	355 ± 2	-	280 ± 5	2550	Reflector	Horizontal	5000	EM-341	14143Z/98 -
JHC 400V 2500W 315 BH	2500	400	TYPE 1	*230 ± 5	378 ± 2	-	315 ± 5	2700	Reflector	Horizontal	5000	2JHC036	14106Z/98 -
JHT 480V 2500W 635 MH	2500	480	TYPE 8	146 ± 5	731 ± 2	-	635 ± 5	2500	Translucent	Horizontal	5000	JHS004	2500T3 QIR480-2500/TS
JHS 480V 2500W 635 MH	2500	480	TYPE 8	146 ± 5	731 ± 2	-	635 ± 5	2500	Clear	Horizontal	5000	JHS005	2500T3/CI QIR480-2500/S
3000 WATTS COLOR TEMP. 2400 - 2700 KELVIN													
*JHS 235V 3000W 280 TU	3000	230 - 240	TYPE 5	NOTE	350 ± 2	-	280 ± 5	2400	Clear	Universal	5000	JHS006	13565V -
*JHS 235V 3000W 280 JU	3000	230 - 240	TYPE 3	-	-	370 ± 10	280 ± 5	2400	Clear	Universal	5000	2JHS060	13565X -
JHS 235V 3000W 280 BFH	3000	230 - 240	TYPE 1	210 ± 10	354 ± 2	-	280 ± 5	2400	Clear	Horizontal	5000	EM-313	-
JHS 400V 3000W 280 JU	3000	400	TYPE 3	-	-	370 ± 10	280 ± 5	2400	Clear	Universal	5000	2JHS053	-
JHC 400V 3000W 280 BH	3000	400	TYPE 1	210 ± 10	355 ± 2	-	280 ± 5	2550	Reflector	Horizontal	5000	EM-344	14144Z/98 -
JHC 400V 3000W 315 BH	3000	400	TYPE 1	*230 ± 5	378 ± 2	-	315 ± 5	2700	Reflector	Horizontal	5000	2JHC037	14111Z/98 -
JHC 400V 3000W 315 BH	3000	400	TYPE 1	*230 ± 5	378 ± 2	-	315 ± 5	2700	Reflector	Horizontal	5000	EM-344	14144Z/98 -
JHS 400V 3000W 410 JU	3000	400	TYPE 3	-	-	508 ± 10	410 ± 5	2400	Clear	Universal	5000	EM-157	-
JHC 235V 3000W 700 BFH1	3000	235	TYPE 2	150 ± 5	787.5 ± 2	-	700 ± 5	2400	Reflector	Horizontal	5000	RZ-187	14107Z/98 -
JHS 400V 3000W 700 JU	3000	400	TYPE 3	-	-	798 ± 10	700 ± 5	2400	Clear	Universal	5000	2JHS058	13230X QIR400-3000/VB
JHC 400V 3000W 700 JU	3000	400	TYPE 3	-	-	798 ± 10	700 ± 5	2400	Reflector	Universal	5000	EM-030	13230X/98 QIR400-3000/VB
3200 WATTS COLOR TEMP. 2450 KELVIN													
JHS 240V 3200W 813 MH	3200	230 - 240	TYPE 8	146 ± 5	1062 MAX	-	813 ± 5	2450	Clear	Horizontal	5000	EM-545	3200T3/CL -
JHS 277V 3200W 813 MH	3200	277	TYPE 8	146 ± 5	1062 MAX	-	813 ± 5	2450	Clear	Horizontal	5000	EM-547	3200T3/CL 277V -
3800 WATTS COLOR TEMP. 2500 KELVIN													
JHS 570V 3800W 965 MH	3800	570	TYPE 8	146 ± 5	1062 MAX	-	965 ± 5	2500	Clear	Horizontal	5000	EM-540	3800T3 QIR570-3800/S
JHS 570V 3800W 965 MU	3800	570	TYPE 8	146 ± 5	1062 MAX	-	965 ± 5	2500	Clear	Universal	5000	JHS007	3800T3/CL/VB QIR570-3800/VS
4600 WATTS COLOR TEMP. 3000 KELVIN													
JHS 480V 4600W 235 TH	4600	480	TYPE 4	155 ± 5	290 ± 2	-	235 ± 5	3000	Clear	Horizontal	1000	2JHS079	13136V -
6000 WATTS COLOR TEMP. 3000 KELVIN													
JHS 480V 6000W 290 TH	6000	480	TYPE 5	35 ± 5	350 ± 2	-	290 ± 5	3000	Clear	Horizontal	1000	EM-288	13170V -

*Tube diameter is 13mm max. *Wire end is finished by splice NOTE) Wire length: right side 117 ± 5 & left side 138 ± 5mm