

Type 19CS4

EFFICIENCY DIODE
Indirectly heated—for series operation

GENERAL

The U191 is intended for use as an Efficiency Diode in television receivers having series connected heaters and is suitable for A.C./D.C. operation.

RATING

Heater Current (amps)	I_h	0.3
Heater Voltage (volts)	V_h	19.0
Maximum Peak Inverse Anode P.I.V. (max) Voltage (kV)		4.5*†
Maximum Anode Current (mean) (mA)	I_a (av) max	120 150
Maximum Anode Current (peak) (mA)	I_a (pk) max	600 450
Maximum Heater-Cathode Voltage (volts) (h—ve, D.C. + Peak A.C.)	V_{h-k} (max)	900†
Maximum Heater-Cathode Voltage (h—ve, pulse) (kV)	V_{h-k} (pk) max	4.5*†
Maximum Heater to Anode Volts (h+ve pulse) (kV)	V_{a-h} (max)	3*

* Rated for T.V. Line Scan where the duty cycle does not exceed 15% and the pulse duration does not exceed 15 μ secs.

† Measured with respect to the higher potential heater pin. The D.C. component should not exceed 600 volts.

‡ 4.5 kV is a Design Centre Rating. The absolute rating of 5.3 kV must not be exceeded.

INTER-ELECTRODE CAPACITANCES (pF)

Anode to Heater plus Cathode	$C_{a-h,k}$	7.7
Cathode to Heater plus Anode	$C_{k-h,a}$	9.0

DIMENSIONS

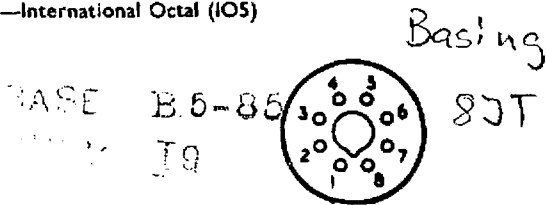
Maximum Overall Length (mm)	90
Maximum Diameter (mm)	32
Maximum Seated Height (mm)	77
Approximate Nett Weight (ozs)	1½
Approximate Packed Weight (ozs)	2½

MOUNTING POSITION—Unrestricted.

BULB—Clear

TOP CAP—CT1

BASE—International Octal (IO5)



Viewed from Free End of Pins

CONNECTIONS

Pin 1	No Pin	NP
Pin 2	Internal Connection	IC
Pin 3	Internal Connection	IC
Pin 4	No Pin	NP
Pin 5	Anode	a
Pin 6	No Pin	NP
Pin 7	Heater	h
Pin 8	Heater	h
Cap	Cathode	k

NOTE: When the anode is pulsed, it is recommended that contacts 1 and 6 on the valve holder should be removed.

