

**PE54**  
**PHOTO ELECTRIC CELL**

GENERAL

The Mazda PE54 is a Gas Filled Photo Electric Cell with a rectangular wire anode and a Caesium Antimony Cathode surface, having maximum sensitivity in the blue region of the spectrum.

RATING

Average Overall Sensitivity (approx) $\mu\text{A}/\text{Lumen}$	90*
Average Primary Sensitivity (approx) ( $\mu\text{A}/\text{Lumen}$ )	30§
Maximum Gas Amplification Factor	6‡
Maximum Working Voltage (volts)	90
Maximum Average Cathode Current ( $\mu\text{A}$ )	6§
Maximum Peak Cathode Current ( $\mu\text{A}$ )	20
Maximum Peak Cathode Current Density ( $\mu\text{A}/\text{sq.cm}$ )	15
Maximum Dark Current ( $\mu\text{A}$ )	0.1†
Minimum Insulation Resistance between Electrodes (Megohms)	1,000

NOTES

\* Measured at 0.085 lumens with lamp at colour temperature 2,700 K and a cell series resistance of 1 Megohm.

§ The Primary Sensitivity is measured at an anode voltage of 25, at which ionisation has not taken place.

‡ Gas Amplification factor is a ratio of current at 90 volts to current at 25 volts under conditions of the overall sensitivity measurement.

§ Averaged over a period not greater than 30 seconds.

† Measured at 90 volts and 1 Megohm series resistance, zero illumination.

All Maximum Ratings are absolute values, not design centres.

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INTER-ELECTRODE CAPACITANCES (pF)

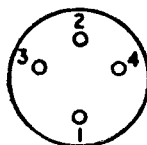
Anode to Cathode 1.6

DIMENSIONS

Maximum Overall Length (mm)	98.0
Maximum Seated Height (mm)	83.0
Light Centre from Seat (mm)	51-57
Maximum Bulb Diameter (mm)	26.5
Maximum Base Diameter (mm)	30.5
Cathode Length (nominal) (mm)	35.0
Effective Cathode Width (mm)	18.0
Projected Cathode Area (sqcm.)	6.3
Approximate Nett Weight (ozs)	1½
Approximate Packed Weight (ozs)	2½

MOUNTING POSITION—Unrestricted

BASE—British 4 Pin.



Viewed from free end of pins  
Direction of light

CONNECTIONS

Pin 1	Anode	a
Pin 2	Cathode	k
Pin 3	No Pin	NP
Pin 4	No Pin	NP