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) μA/Lumen	90*
Average Primary Sensitivity (approx) (μA/Lumen)	30$
Maximum Gas Amplification Factor	6‡
Maximum Working Voltage (volts)	90
Maximum Average Cathode Current (μA)	6§
Maximum Peak Cathode Current (μA)	20
Maximum Peak Cathode Current Density (μA/sq.cm)	15
Maximum Dark Current (μA)	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.

Associated Electrical Industries Limited
Electronic Components Division
Tel.: GERRARD 9797

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INTER-ELECTRODE CAPACITANCES (pF)

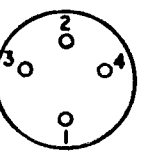
Anode to Cathode	1.6

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)	1¼
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

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