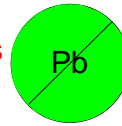


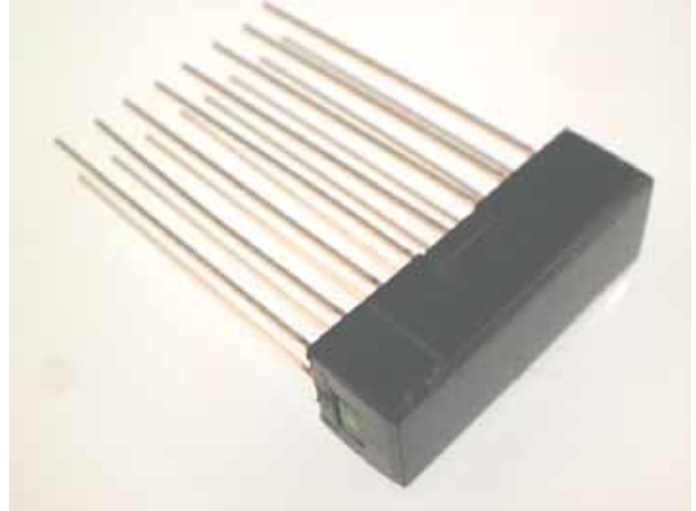
These components are RoHS compliant



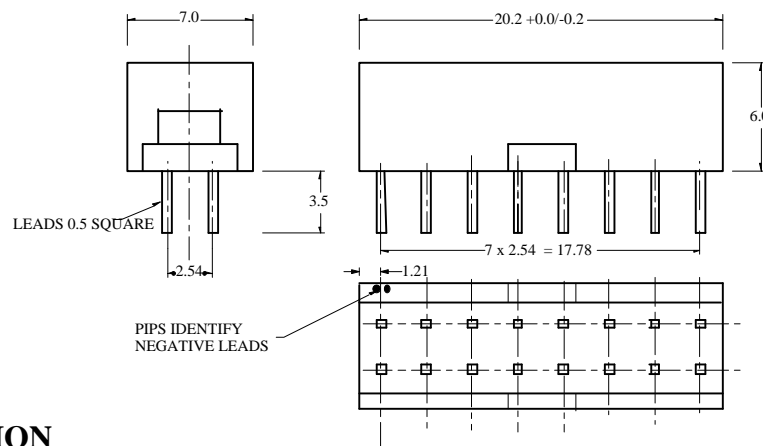
# SSA-005-2 Miniature IR Array

SSA-005-2 is an eight element array of silicon phototransistors or gallium arsenide infrared emitters in a polycarbonate housing. It is supplied with either wide angle flat-lensed or narrow angle components. All leads fit an 0.1" inch matrix.

- Very compact 8-element arrays with a double row of leads on an 0.1" matrix.
- End stackable.
- No dust traps to reduce opto performance.
- Smooth black polycarbonate housing transmits infrared but reduces daylight influence.



## MECHANICAL



## ORDERING INFORMATION

**FLAT LENS PHOTOTRANSISTOR=SSA005-2A**  
**DOME LENS PHOTOTRANSISTIR=SSA005-2B**  
**FLAT LENS INFRARED EMITTER=SSA005-2C**  
**DOME LENS INFRARED EMITTER=SSA005-2D**

### PLEASE NOTE

**CAN BE SUPPLIED IN LESS THAN 8 WAY VERSIONS ON REQUEST WITH COUPLED PAIR SPECIFICATION.**

**BEDFORD OPTO TECHNOLOGY LTD**  
**1,BIGGAR BUSINESS PARK, BIGGAR, LANARKSHIRE,ML12 6NR**  
Tel: +44 (0) 1899 221221 Fax: +44 (0) 1899 221009  
Website: bot.co.uk E-mail: bill@bot.co.uk

|  |                   |
|--|-------------------|
| <b>SOLDERING TEMPERATURE</b> (3secs max 2mm from body)<br><b>ALL TYPES</b> | <b>260 °C max</b> |
|--|-------------------|

**SSA-005-2**

## **INFRARED DIODES**

### **IR-Emitting Diodes in Miniature (T-3/4) Package**

| <b>PARAMETER</b>                            | <b>CONDITIONS</b>                        | <b>SYMBOL</b> | <b>VALUE</b>                                       |
|---|--|---------------|--|
| <b>Viewing Angle</b> CQY 36N<br>CQY 37N     |  | $\varphi$     | $\pm 55^\circ$                                     |
| <b>Peak Wavelength</b>                      |  | $\lambda_p$   | 950nm  |
| <b>Power Dissipation</b>                    |  | $P_v$         | 170mW  |
| <b>Thermal Resistance Junction/Ambient</b>  |  | $R_{thJA}$    | 450K/W   |
| <b>Forward Current</b>                      |  | $I_F$         | 100mA  |
| <b>Rise Time</b>                            | $I_F=1.5A, t_p/T=0.01, t_p \leq 10\mu s$ | $T_r$         | 400ns  |
| <b>Fall Time</b>                            | $I_F=1.5A, t_p/T=0.01, t_p \leq 10\mu s$ | $T_f$         | 450ns  |
| <b>Junction Temperature</b>                 |  | $T_j$         | 100°C  |
| <b>Storage Temperature Range</b>            |  | $T_{stg}$     | -25...+100°C                                       |
| <b>Radiant Intensity</b> CQY 36N<br>CQY 37N | $I_F=50mA, t_p \leq 20ns$                | $I_e$         | Min = 0.7mW/sr<br>Typ = 1.5mW/sr<br>Min = 2.2mW/sr |

## **PHOTO**

### **DETECTORS Silicon -NPN - Phototransistors**

| <b>PARAMETER</b>                                  | <b>CONDITIONS</b>                        | <b>SYMBOL</b> | <b>VALUE</b>                                |
|---|--|---------------|---|
| <b>Viewing Angle</b> BPW 16N<br>BPW 17N           |  | $\varphi$     | $\pm 40^\circ$                              |
| <b>Peak Wavelength</b>                            |  | $\lambda_p$   | 825nm                                       |
| <b>Thermal Resistance Junction/Ambient</b>        |  | $R_{thJA}$    | 450K/W                                      |
| <b>Forward Current</b>                            |  | $I_F$         | 100mA                                       |
| <b>Rise Time</b>                                  | $V_s=5V, I_c=5mA, R_L=100\Omega$         | $T_r$         | 4.8 $\mu s$                                 |
| <b>Fall Time</b>                                  | $V_s=5V, I_c=5mA, R_L=100\Omega$         | $T_f$         | 5.0 $\mu s$                                 |
| <b>Junction Temperature</b>                       |  | $T_j$         | 100°C                                       |
| <b>Storage Temperature Range</b>                  |  | $T_{stg}$     | -55...+100°C                                |
| <b>Collector Light Current</b> BPW 16N<br>BPW 17N | $E_e=1mW/cm^2, \lambda=950nm, V_{ce}=5V$ | $I_{ca}$      | Min = 0.07mA<br>Typ = 0.14mA<br>Min = 0.5mA |
| <b>Collector Emitter Voltage</b>                  |  | $V_{CEO}$     | 32V   |
| <b>Collector Dark Current</b>                     | $V_{CE} = 20V, E = 0$                    | $I_{CEO}$     | Typ = 1nA                                   |

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