



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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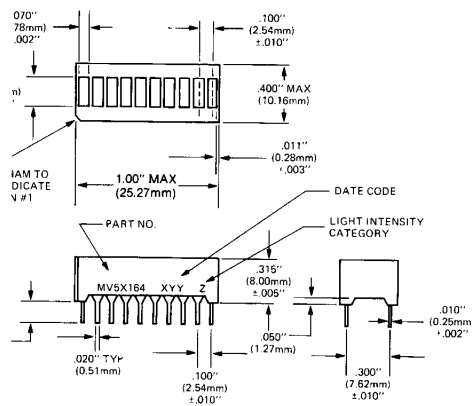
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**MV5A164 MV5D164
MV5B164 MV5E164
MV5C164**

PACKAGE DIMENSIONS



NOTE: TOLERANCES ±.010" UNLESS SPECIFIED

DESCRIPTION

These are 10 segments multicolor bargraphs with separate anodes and cathode for each segment. The packages are stackable.

FEATURES

- Large segments, closely spaced
- End stackable
- Fast switching — excellent for multiplexing
- Low power consumption
- Directly compatible with ICs.
- Standard 0.3" DIP lead spacing

C1466AA

Custom multicolor bargraphs are available with minimum delivery requirements.

| ABSOLUTE MAXIMUM RATING | |
|-----------------------------------|---------------|
| Power dissipation at 25°C ambient | 750 mW |
| Derate linearly from 50°C | -14.3 mW/°C |
| Storage and operating temperature | -40°C to 85°C |
| Continuous forward current | |
| Total | 200 mA |
| Per segment | 25 mA |
| Reverse voltage | |
| Per segment | 6 V |
| Soldering time at 260°C | 5 Sec. |

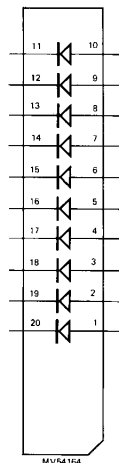
| TYPICAL THERMAL CHARACTERISTICS | |
|---|-------------|
| Thermal resistance Junction to free air θ_{JA} | 160°C/W |
| Wavelength temperature coefficient (case temperature) | 1.0 A/°C |
| Forward voltage temperature coefficient | |
| Yellow | -1.5 mV/°C, |
| Green | -1.4 mV/°C, |
| HER | -2.0 mV/°C |

ELECTRO-OPTICAL CHARACTERISTICS

(25°C Free Air Temperature Unless Otherwise Specified)

| CONDITIONS | MIN | TYP | MAX | UNITS | TEST |
|--------------------------------------|-----|------|-----|----------------|-------------------------|
| Forward voltage (HER, Green, Yellow) | | 2.2 | 3.0 | V | $I_f = 10 \text{ mA}$ |
| Luminous intensity (average) | 510 | 1800 | | μCd | $I_f = 10 \text{ mA}$ |
| Peak emission wavelength | | | | | |
| High efficiency red (HER) | | 630 | | nm | |
| Green | | 562 | | nm | |
| Yellow | | 585 | | nm | |
| Spectral line half width | | 40 | | nm | |
| Dynamic resistance — segment | | 26 | | ohm | $I_f = 20 \text{ mA}$ |
| Switching time | | 500 | | ns | |
| Reverse voltage | | 6.0 | | V | $I_R = 100 \mu\text{A}$ |

INTERNAL CIRCUIT DIAGRAMS



Pin connections

| <u>Electrical</u> | | <u>Electrical</u> | |
|-------------------|--------------|-------------------|----------------|
| Pin No | connections | Pin No | connections |
| 1 | Bar 1 anode | 11 | Bar 10 cathode |
| 2 | Bar 2 anode | 12 | Bar 9 cathode |
| 3 | Bar 3 anode | 13 | Bar 8 cathode |
| 4 | Bar 4 anode | 14 | Bar 7 cathode |
| 5 | Bar 5 anode | 15 | Bar 6 cathode |
| 6 | Bar 6 anode | 16 | Bar 5 cathode |
| 7 | Bar 7 anode | 17 | Bar 4 cathode |
| 8 | Bar 8 anode | 18 | Bar 3 cathode |
| 9 | Bar 9 anode | 19 | Bar 2 cathode |
| 10 | Bar 10 anode | 20 | Bar 1 cathode |

C14/71

MULTICOLOR BARGRAPH SEGMENT COLOR

| Segment | MV5A164 | MV5B164 | MV5C164 | MV5D164 | MV5E164 |
|---------|---------|---------|---------|---------|---------|
| 1 | HER | HER | Green | Green | Green |
| 2 | HER | HER | Green | Green | Yellow |
| 3 | HER | Yellow | Green | Green | Yellow |
| 4 | Yellow | Yellow | Green | Green | Yellow |
| 5 | Yellow | Green | Green | Green | Yellow |
| 6 | Yellow | Green | Green | HER | Yellow |
| 7 | Yellow | Yellow | Yellow | HER | Yellow |
| 8 | Green | Yellow | Yellow | HER | HER |
| 9 | Green | HER | Yellow | HER | HER |
| 10 | Green | HER | HER | Yellow | HER |

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