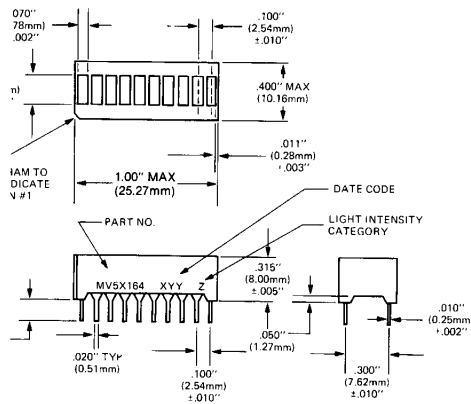


**MV5A164 MV5D164**  
**MV5B164 MV5E164**  
**MV5C164**

**PACKAGE DIMENSIONS**



C1466AA

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

Custom multicolor bargraphs are available with minimum delivery requirements.

<b>ABSOLUTE MAXIMUM RATING</b>	
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.

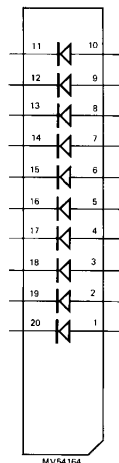
<b>TYPICAL THERMAL CHARACTERISTICS</b>	
Thermal resistance Junction to free air $\theta_{JA}$	160°C/W
Wavelength temperature coefficient (case temperature)	1.0 A/°C
Forward voltage temperature coefficient	
Yellow	-1.5 mV/°C,
Green	-1.4 mV/°C,
HER	-2.0 mV/°C

**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		$\mu\text{Cd}$	$I_f = 10 \text{ mA}$
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

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**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



## MULTICOLOR BARGRAPH

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.