

# Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Units
Peak Forward Current per Segment or DP (Duration <35μs)	I <sub>PEAK</sub>		200	mA
Average Current per Segment or DP <sup>(1)</sup>	I <sub>AVG</sub>		7	mA
Power Dissipation per Digit <sup>(2)</sup>	P <sub>D</sub>		125	mW
Operating Temperature, Ambient	T <sub>A</sub>	-20	+70	°C
Storage Temperature	T <sub>S</sub>	-20	+80	°C
Reverse Voltage	V <sub>R</sub>		5	V
Solder Temperature at connector edge (t≤3 sec.) <sup>(3)</sup>			230	°C

- NOTES: 1. Derate linearly at 0.12 mA/°C above 25°C ambient.  
 2. Derate linearly at 2.3 mW/°C above 25°C ambient.  
 3. See Mechanical section for recommended soldering techniques and flux removal solvents.

## Electrical/Optical Characteristics at T<sub>A</sub>=25°C

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Units
Luminous Intensity/Segment or dp (Time Averaged) 15 digit display 5082-7275, 5082-7295 <sup>(4,6)</sup>	I <sub>v</sub>	I <sub>avg.</sub> = 2 mA (30 mA Peak 1/15 duty cycle)	30	90		μcd
Luminous Intensity/Segment or dp (Time Averaged) 5 digit display 5082-7265, 5082-7285 <sup>(4,6)</sup>	I <sub>v</sub>	I <sub>avg.</sub> = 2 mA (10 mA Peak 1/5 duty cycle)	30	70		μcd
Forward Voltage per Segment or dp 5082-7275, 5082-7295 15 digit display	V <sub>F</sub>	I <sub>F</sub> = 30 mA		1.60	2.3	V
Forward Voltage per Segment or dp 5082-7265, 5082-7285 5 digit display	V <sub>F</sub>	I <sub>F</sub> = 10 mA		1.55	2.0	V
Peak Wavelength	λ <sub>PEAK</sub>			655		nm
Dominant Wavelength <sup>(5)</sup>	λ <sub>d</sub>			640		nm
Reverse Current per Segment or dp	I <sub>R</sub>	V <sub>R</sub> = 5V			100	μA
Temperature Coefficient of Forward Voltage	ΔV <sub>F</sub> /°C			-2.0		mV/°C

- NOTES: 4. The luminous intensity at a specific ambient temperature, I<sub>v</sub>(T<sub>A</sub>), may be calculated from this relationship:  
 $I_v(T_A) = I_v(25^\circ C) (.985)^{(T_A - 25^\circ C)}$   
 5. The dominant wavelength λ<sub>d</sub>, is derived from the C.I.E. Chromaticity Diagram and represents the single wavelength which defines the color of the device.  
 6. Operation at peak currents of less than 6.0 mA is not recommended.

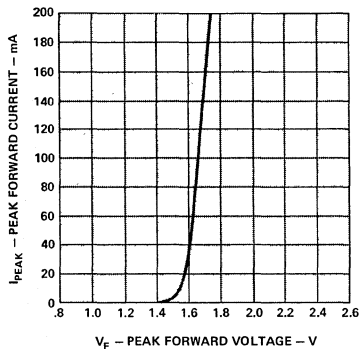


Figure 1. Peak Forward Current vs. Peak Forward Voltage.

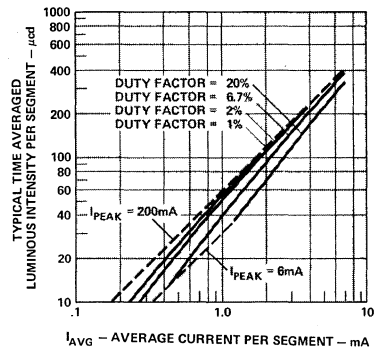


Figure 2. Typical Time Averaged Luminous Intensity per Segment vs. Average Current per Segment.