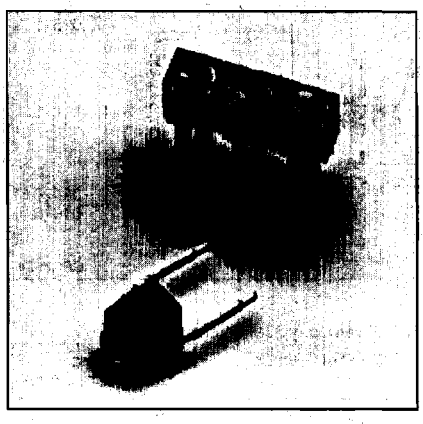
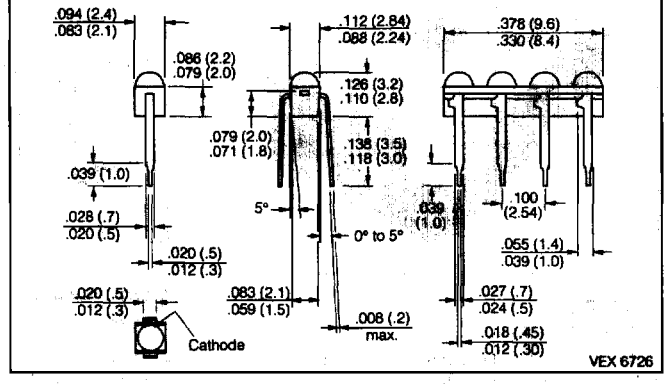
SIEMENS

SINGLE LG/LR/LY Z181
2 to 6 DIODE ARRAYS LG Z182–186
8, 10 DIODE ARRAYS LG Z188, 180
2 to 10 DIODE ARRAYS LR Z182–189/180
2 mm LED Lamp



Dimensions in inches (mm)



FEATURES

- **Emission color**
  - **LR : Red**
  - **LG : Green**
  - **LY: Yellow**
- **Miniature Size**
- **LR: Single lamp and 2 to 10 diode arrays**
- **0.100" (2.54 mm) lead spacing**
- **End stackable to arrays of any length**
- **IC compatible**

Maximum Ratings (Individual Diode)

Operating/Storage Temperature Range (T_{OP},T_{STG}) ..... –40°C to +80°C
Junction Temperature (T_J) ..... 100°C
Soldering Temperature, 2 mm from case bottom (T_S), t≤3 sec ..... 230°C
Forward Current (I_F) ..... 30 mA
Surge Current (I_{FM}) t ≤10 µs ..... 0.5 A
Reverse Voltage (V_R) ..... 5 V
Power Dissipation (P_{TOT}), T_A=25°C ..... 90 mW
Thermal Resistance Junction to Air (R_{THJA}) ..... 750 K/W

Note: Mounted on PC board: pad size ≥16 mm²

Characteristics T_A=25°C, all values typical unless otherwise noted

Parameter		Sym.	Value	Unit	Condition
Peak Wavelength		λ_{PEAK}	660	nm	I_F=20 mA
Dominant Wavelength		λ_{DOM}	645		
Spectral Bandwidth 50% I_{RELMAX}		$\Delta\lambda$	35		
Viewing Angle, 50% I_V		2φ	100	Deg.	
Forward Voltage		V_F	1.6 (≤2)	V	I_F=10 mA
Reverse Current		I_R	0.01 (≤10)	µA	V_R=5 V
Capacitance		C_0	25	pF	V_R=0 V f=1 MHz
Switching Time, I_V	10% to 90%, typ.	t_R	120	ns	I_F=100 mA t_P=10 µs R_L= 50 Ω
	90% to 10%, max.	t_F	50		
Luminous Intensity*		I_V	0.25	mcd	I_F=10 mA

Part Number	No. of LEDs	Part Number	No. of LEDs
LG/LR/LY Z181-CO	1	LG/LR Z186-CO	6
LG/LR Z182-CO	2	LR Z187-CO	7
LG/LR Z183-CO	3	LG/LR Z188-CO	8
LG/LR Z184-CO	4	LR Z189-CO	9
LG/LR Z185-CO	5	LG/LR Z180-CO	10

* Luminous intensity ratio of one packaging unit I_{VMAX}/I_{VMIN} ≤2.

See graph numbers OHL02144, OHL01732, OHL01263, OHL01757, OHL01686, OHL01687, OHL01688, OHL01689, OHL01690, OHL01691 beginning on page 4–92.