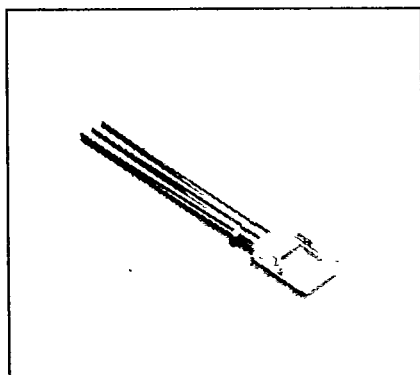
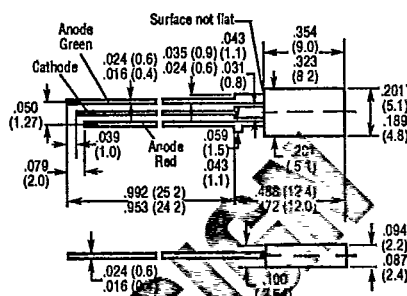


SIEMENS**LD 1103/1104/1105****TWO-COLOR RED AND GREEN
RECTANGULAR LED LAMP****T-41-25**

Package Dimension in Inches (mm)

**FEATURES**

- Rectangular Shape
- Colorless Lens
- Two-Color Operation, Red and Green
- Three Leads, One of Which Is Common Cathode
- Minimum Lead Length 1"
- .05" Lead Spacing

DESCRIPTION

The LD 1103 series has a colorless case with rectangular, luminous area and diffuser layer. Two chips (GaP green and TSN-red) enable the use as optical indicator with two functions.

Because of its very low current consumption and hence low inherent heating as well as high vibration resistance and long service life, this LED is suitable for applications where signal lamps are not or only inadequately useful. Moreover, the LED can be driven by TTL ICs.

Maximum Ratings

Reverse Voltage (V_R)	5 V
Forward Current (I_F)	60 mA
Surge Current (I_{FS})	1 A
Storage Temperature (T_{stg})	-55 to +100°C
Junction Temperature (T_J)	100°C
Power Dissipation (P_{tot} , $T_{amb} = 25^\circ\text{C}$)	200 mW
Thermal Resistance Junction Air (R_{thJA})	375 K/W

Characteristics ($T_{amb} = 25^\circ\text{C}$)

Parameter	Symbol	TSN-red	GaP-green	Unit
Wavelength of the Emitted Light	λ_{peak}	645 ± 15	560 ± 15	nm
Dominant Wavelength	λ_{dom}	638	561	nm
Aperture Cone (Half Angle) (Limits for 50% of Luminous Intensity I_λ)	α	50		Deg
Lateral Emission of Light Screened				
Forward Voltage ($I_F = 20\text{ mA}$)	V_F	2.4 (± 3.0)		V
Reverse Current ($V_R = 5\text{ V}$)	I_R	0.01 (± 10)		μA
Rise Time	t_r	100	50	ns
Fall Time	t_f	100	50	ns
Capacitance ($V_R = 0\text{ V}$, $f = 1\text{ MHz}$)	C_O	12	45	pF

Luminous Intensity

Type	Min	Unit	Test Condition
LD 1103	1.0	mcd	20 mA
LD 1104	1.6	mcd	20 mA
LD 1105	2.5	mcd	20 mA

*The ratings indicated for the forward current I_F or the surge current I_{FS} , respectively, are maximum ratings of the component. If both chips are operated simultaneously, the sum of the forward current ratings is not allowed to exceed the indicated maximum value.

See graph numbers 1A, 2B, 3A (HER), 3B (green), 4A, 5A, 6A, 7A, 8A, 9A, 10A on pages 4-27-4-34.