







EVERLIGHT

LED DIGIT DISPLAYS

T-41-33

Display Size	Type No. and Remark (*)	New Model No.	Chip		C. C. or C. A.	Peak Wave Length λ_p (nm)	Absolute Maximum Ratings				Electro-Optical Characteristics					Package Fig.	
			Material	Emitted Color			$\Delta\lambda$ (nm)	Po (mW)	I _p (mA)	Peak I _p (mA)	V _f (V)			I _f (mA)			
											Min.	Typ.	Max.	I _f (mA)	Min.	Typ.	
	S404RDB *	—	GaAsP	Red	—	655	40	110	40	200	1.5	1.7	2.0	10-20	200	500	
	S404HWP	—	GaP	Bright Red		697	90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S404HDR	—	GaAsP/GaP	Hi-Eff. Red		635	45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
	S404GWA	—	GaP	Green		565	30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S404YWB	—	GaAsP/GaP	Yellow		585	35	85	20	160	1.7	2.0	2.8	10-20	650	1500	
	S404EDE	—	GaAsP/GaP	Orange		635	45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
	S411RWB **	ELS-7760R	GaAsP	Red	Common	655	40	110	40	200	1.5	1.7	2.0	10-20	200	480	
	S411HWP	ELS-7760P	GaP	Bright Red		697	90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S411GWA	ELS-7673G	GaP	Green		565	30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S411YWB	ELS-7663Y	GaAsP/GaP	Yellow		585	35	85	20	160	1.7	2.0	2.8	10-20	650	1500	
	S411EWA *	ELS-3733E	GaAsP/GaP	Orange		635	45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
						Anode	655	40	110	40	200	1.5	1.7	2.0	10-20	200	480
	S412RWB **	—	GaAsP	Red	697		90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S412HWP	—	GaP	Bright Red	565		30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S412GWA	—	GaP	Green	585		35	85	20	160	1.7	2.0	2.8	10-20	650	1500	
	S412YWB	—	GaAsP/GaP	Yellow	635		45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
	S412EWA *	—	GaAsP/GaP	Orange													
	S414RWB *	ELS-7756R	GaAsP	Red	—	655	40	110	40	200	1.5	1.7	2.0	10-20	200	480	
	S414HWP	ELS-7756P	GaP	Bright Red		697	90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S414GWA	ELS-7676G	GaP	Green		565	30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S414YWB	ELS-7656Y	GaAsP/GaP	Yellow		585	35	85	20	160	1.7	2.0	2.8	10-20	650	1500	
	S414EWA	ELS-3736E	GaAsP/GaP	Orange		635	45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
	S422RWB *	ELS-7751R	GaAsP	Red	Common	655	40	110	40	200	1.5	1.7	2.0	10-20	200	480	
	S422HWP	ELS-7751P	GaP	Bright Red		697	90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S422GWA	ELS-7671G	GaP	Green		565	30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S422YWB	ELS-7661Y	GaAsP/GaP	Yellow		585	35	85	20	160	1.7	2.0	2.8	10-20	650	1500	
	S422EWA	ELS-3731E	GaAsP/GaP	Orange		635	45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
	S505RWB **	ELS-547AR	GaAsP	Red	Common	655	40	110	40	200	1.5	1.7	2.0	10-20	200	500	
	S505HWP **	ELS-547AP	GaP	Bright Red		697	90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S505HDR	ELS-547AHR	GaAsP/GaP	Hi-Eff. Red		635	45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
	S505GWA *	ELS-547AG	GaP	Green		565	30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S505YWB	ELS-547AY	GaAsP/GaP	Yellow		585	35	85	20	160	1.7	2.0	2.8	10-20	650	1500	
	S505EDE	ELS-547AE	GaAsP/GaP	Orange		635	45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
						Anode	655	40	110	40	200	1.5	1.7	2.0	10-20	200	500
	S506RWB **	ELS-546AR	GaAsP	Red	697		90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S506HWP **	ELS-546AP	GaP	Bright Red	635		45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
	S506HDR	ELS-546AHR	GaAsP/GaP	Hi-Eff. Red	565		30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S506GWA *	ELS-546AG	GaP	Green	585		35	85	20	160	1.7	2.0	2.8	10-20	650	1500	
	S506YWB	ELS-546AY	GaAsP/GaP	Yellow	635		45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
	S511RWB **	ELS-6780R	GaAsP	Red	Common	655	40	110	40	200	1.5	1.7	2.0	10-20	200	500	
	S511HWP *	ELS-6780P	GaP	Bright Red		697	90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S511HDR *	ELS-6980HR	GaAsP/GaP	Hi-Eff. Red		635	45	100	30	160	1.7	2.0	2.8	10-20	900	2200	
	S511GWA *	ELS-6480G	GaP	Green		565	30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S511YWB	ELS-6680Y	GaAsP/GaP	Yellow		585	35	85	20	160	1.7	2.0	2.8	10-20	700	1700	
	S511EDE	ELS-6680E	GaAsP/GaP	Orange		635	45	100	30	160	1.7	2.0	2.8	10-20	800	2000	
						Anode	655	40	110	40	200	1.5	1.7	2.0	10-20	200	500
	S512RWB **	ELS-6760R	GaAsP	Red	697		90	45	15	50	1.7	2.1	2.8	5-10	300	700	
	S512HWP *	ELS-6760P	GaP	Bright Red	635		45	100	30	160	1.7	2.0	2.8	10-20	900	2200	
	S512HDR *	ELS-6960HR	GaAsP/GaP	Hi-Eff. Red	565		30	100	30	160	1.7	2.1	2.8	10-20	800	2000	
	S512GWA **	ELS-6480G	GaP	Green	585		35	85	20	160	1.7	2.0	2.8	10-20	700	1700	
	S512YWB	ELS-6660Y	GaAsP/GaP	Yellow	635		45	100	30	160	1.7	2.0	2.8	10-20	800	2000	

LED DIGIT DISPLAYS



TEST CONDITION FOR EACH PARAMETER:

Parameter:	Symbol	Unit	Test Condition
Reverse Voltage	V_R	VOLT	$V_R = 5.0$ Volt
Reverse Current	I_R	μ A	$I_F = 20$ mA
Forward Voltage	V_F	VOLT	$I_F = 10$ mA
Luminous Intensity	I_v	μ CD	$I_F = 20$ mA
Luminous Intensity Matching Ratio	I_v-m		
Spectral Line Half-Width	$\Delta\lambda$	nm	
Power Dissipation	P_D	mW	
Peak Forward Current (Duty 1/10 1KHz)	I_F (Peak)	mA	
Recommended Operating Current	I_F (Rec)	mA	

ABSOLUTE MAXIMUM RATINGS: (Ta = 25°C)

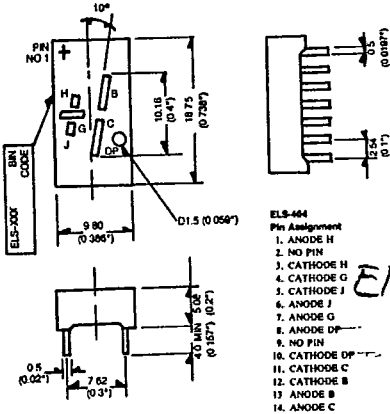
Reverse Voltage	5 Volt
Reverse Current ($V_R = 5V$)	10 μ A
Operating Temperature Range:	-40°C To 85°C
Storage Temperature Range	-40°C To 100°C
Lead Soldering Temperature (1.6mm (1/16 inch) From Body)	260°C For 5 Seconds

REMARKS:

- IV-m = 2:1
- The most popular Types • Common Types The rest are special Types
- Hi-Eff. Red — High Efficiency Red

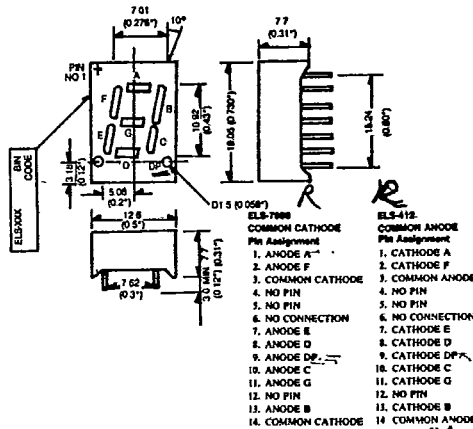
PACKAGE DIMENSIONS:

Fig-6



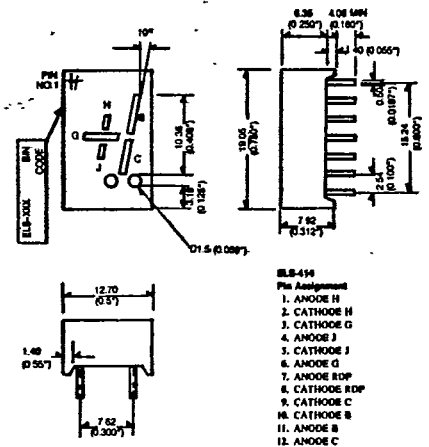
E141f

Fig-7



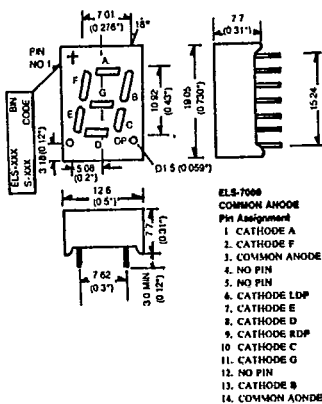
E141k E141n

Fig-8



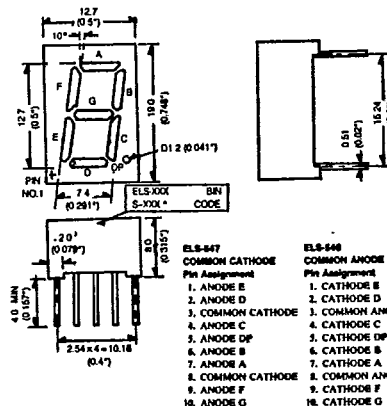
NONE

Fig-9



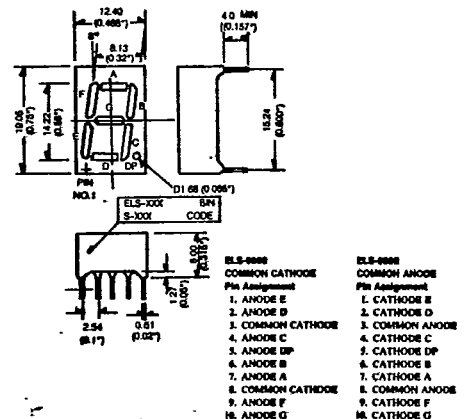
E141c

Fig-10



E101u E101t

Fig-11



E101u E101t

- NOTE:**
1. The average luminous intensity is obtained by summing the luminous intensity of each segment and divided by the total number of segments. The displays are categorized for luminous intensity with the intensity category designed by a letter located on the side of the package.
 2. Luminous intensity is measured with a light sensor and filter, combination that approximates the CIE (International Commission, on Illumination) eye-response curve.
 3. Clean only in water, isopropanol, ethanal, Freon TF or TF (or equivalent)
 4. All dimensions are in millimeters/inches. Tolerance = ± 0.25 mm / ± 0.1 inch