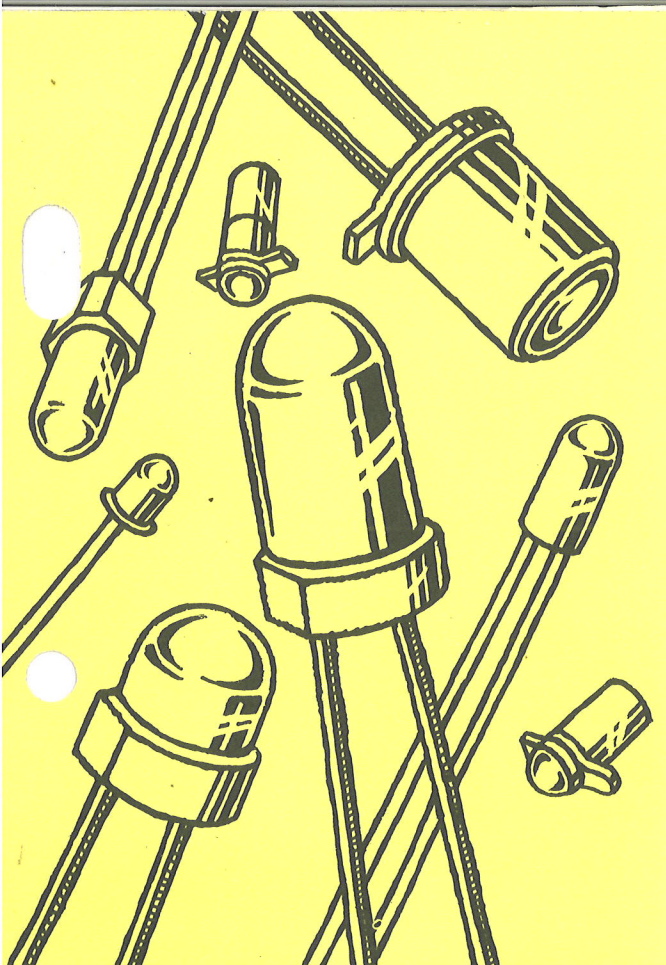


Solid-State Lamps
Catalog
3-3358E

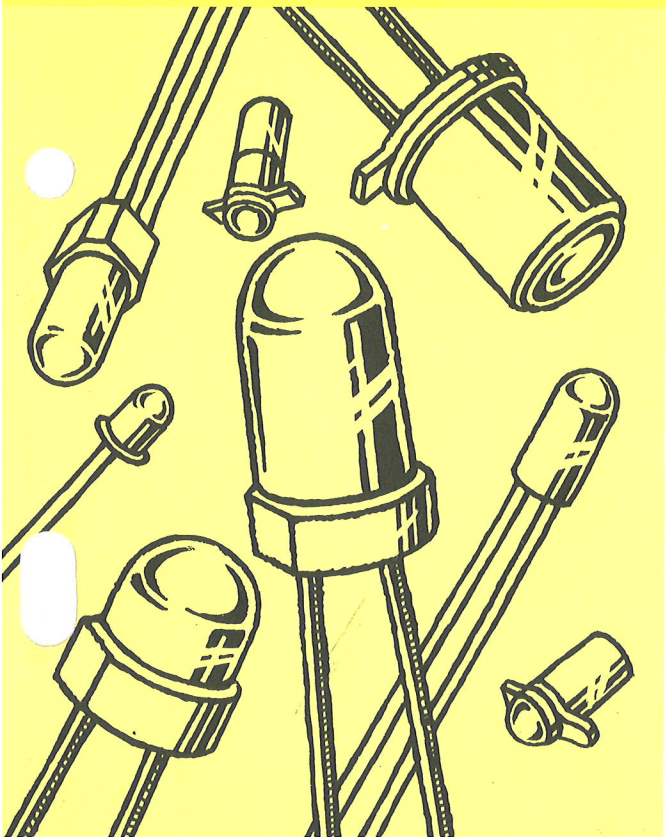
REVISED 10/73



SOLID-STATE LAMPS

VISIBLE

INFRARED



OTHER MINIATURE LAMP
PRODUCTS DEPARTMENT
CATALOGS INCLUDE:

- Sealed Beam Lamps, 3-6251
- Miniature Lamps, 3-6253
- Sub-Miniature Lamps, 3-6252
- Glow Lamps, 3-6254
- Index of All Lamps, 3-6255

MINIATURE LAMP PRODUCTS DEPARTMENT

GENERAL  ELECTRIC

INTRODUCTION

A solid-state lamp is a semiconductor diode that emits radiation (visible or infrared) when biased in the forward direction.

SSL's have the transistor-like properties of high shock and vibration resistance, and long life. They operate at low currents and voltages that are

compatible with integrated circuits.

The Miniature Lamp Products Department of the General Electric Company offers you a full line of solid-state lamp products in both visible and infrared types.

SSL APPLICATION CONCEPTS

The requirements for light sources in many applications for modern and future technology include long life, high reliability, small size, fast switching, low power input, ruggedness, and compatibility with transistor and integrated circuitry. Solid-state lamps

fulfill all these requirements.

Because of these unique advantages over many existing light sources, solid-state lamps will find many uses in immediate as well as future applications, such as the following:

Safety devices
Intrusion alarms
Relay operation

Data transmission Computers
Counters
Indicator signals

System isolators
Position indicators
Telephones

Numerical control equipment
Medical instruments

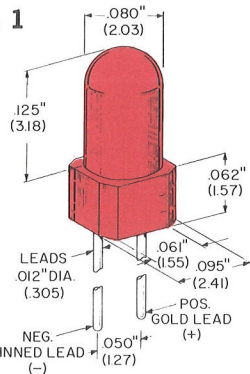


VISIBLE SSL's

Lamp type	Typical output				Typical characteristics								
	Visible		Total										
	mcd	I _f (mA)	μW	I _f (mA)	Forward voltage (V)	Forward current (mA)	Reverse voltage @ 10 μA (V)	Peak emission wave-length (nm)	Max. power dissipation (mW)	Max. forward current (mA)	Rise time (ns)	Fall time (ns)	Mechanical spec's (Fig. No.)
SSL-3*	80 ft-L	100	—	—	1.35	100	2	539	800	400	<200,000	<150,000	5
SSL-12	1.0	5	100	5	2.0	5	3	700	37.5	15	<500	<500	1
SSL-12C	1.0	5	100	5	2.0	5	3	700	37.5	15	<500	<500	1
SSL-22	1.5	10	150	10	2.1	10	3	700	62.5	25	<500	<500	2
SSL-22L	1.5	10	150	10	2.1	10	3	700	62.5	25	<500	<500	3
SSL-212	1.0	5	100	5	2.0	5	3	700	37.5	15	<500	<500	4

*Emits both visible and infrared simultaneously.

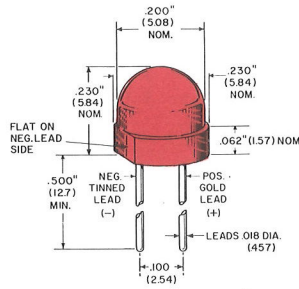
FIG. 1



Leads—.011 (.279)—.013 in. (.330) diameter
0.5 in. (12.7) length minimum
Lead Material—Dumet

ACTUAL SIZE

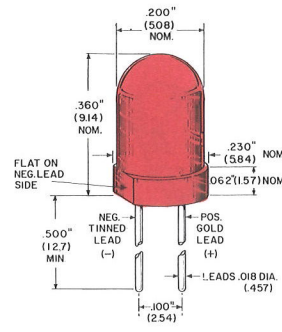
FIG. 2



Leads—.016 (.406)—.019 in. (.483) diameter
0.5 in. (12.7) length minimum
Lead Material—Tin-plated Dumet

ACTUAL SIZE

FIG. 3

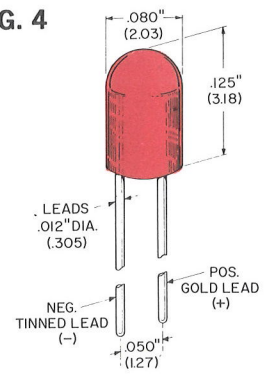


Leads—.016 (.406)—.019 in. (.483) diameter
0.5 in. (12.7) length minimum
Lead Material—Tin-plated Dumet

Mounting clip available upon request, no charge.

ACTUAL SIZE

FIG. 4



Leads—.011 (.279)—.013 in. (.330) diameter
0.5 in. (12.7) length minimum
Lead Material—Dumet

ACTUAL SIZE

NOTE: ALL DIMENSIONS NOMINAL, DIMENSIONS IN PARENTHESES ARE MILLIMETERS.

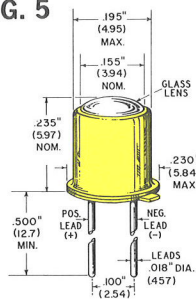


INFRARED SSL's

Lamp type	Typical characteristics			Peak emission wavelength (nm)	Rise time (ns)	Fall time (ns)	Max. power dissipation (mW)	Max. forward current continuous (mA)	Mechanical spec's (Fig. No.)
	Power output (mW) @ I _f	Forward voltage (V) @ I _f	Forward current I _f (mA)						
SSL-3*	1.0	1.35	100	940	<200,000	<150,000	800	400	5
SSL-4	0.4	1.25	100	900	<50	<50	1300	800	5
SSL-5A	1.5	1.35	100	940	<300	<200	1300	500	5
SSL-5B	2.3	1.35	100	940	<300	<200	1300	500	5
SSL-5C	2.9	1.35	100	940	<300	<200	1300	500	5
SSL-15	0.5	1.30	20	940	<700	<500	300	125	6
SSL-34	0.9	1.25	100	900	<50	<50	1300	800	5
SSL-35	5.5	1.35	100	940	<300	<200	1300	500	5
SSL-54	1.0	1.25	100	900	<50	<50	1300	300	5
SSL-55B	4.8	1.35	100	940	<300	<200	1300	300	5
SSL-55C	6.0	1.35	100	940	<300	<200	1300	300	5
SSL-56	2.5	1.35	100	940	<300	<200	1300	300	5
SSL-65	0.3	1.20	20	930	500	500	100	75	7
SSL-66B	0.4 (min.)	1.30	50	930	500	500	150	75	8
SSL-66C	1.0 (min.)	1.30	50	930	500	500	150	75	8
SSL-315	1.0	1.30	20	940	<700	<500	300	125	6

*Emits both visible and infrared simultaneously.

FIG. 5



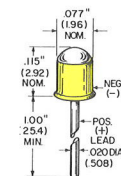
Max. Overall Length—.260 in. (6.6)
(excluding leads)
Max. Diameter: Header—.230 in. (5.84)
Case —.195 in. (4.95)
Leads—.016 (.406)—.019 in. (.483) di-
ameter
1.0 in. (25.4) nominal length
*Flat-lensed versions also available
—add an F to lamp number when
ordering. (ex.—SSL-5CF)

ACTUAL SIZE



FIG. 6

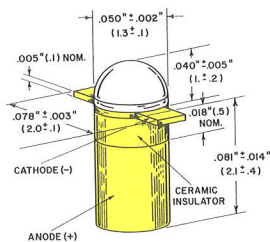
Max. Overall Length—.120 in. (3.05)
(excluding leads)
Max. Diameter: Header—.099 in. (2.51)
Case —.080 in. (2.03)



ACTUAL SIZE



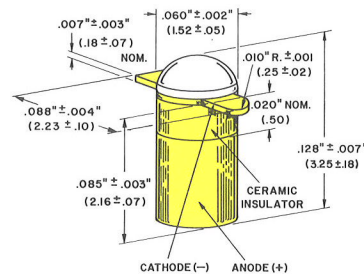
FIG. 7



ACTUAL SIZE



FIG. 8



ACTUAL SIZE



EXCLUSIVE GE GUARANTEES

General Electric guarantees: power output of all lamps to be within published minimum-maximum range (note that range of the SSL 55B, and 55C, is less than 2 to 1!); 100% lamp testing at rated current for power output and forward voltage, and reverse current at 2 volts is less than 10 microamperes.

GE also guarantees each SSL 55B, SSL 55C and SSL 56 for precision beam alignment to within 3 degrees of the mechanical axis of the lamp.

Lamps not meeting published specifications will be replaced or your purchase price refunded upon return of the lamps to your GE Distributor or General Electric Company, Miniature Lamp Products Department, Nela Park, Cleveland, Ohio, 44112, postage prepaid.

NEED MORE SSL INFORMATION? For more detailed mechanical and electrical specifications, including characteristic curves, on the complete line of General Electric Solid-State Lamp products, contact your GE Solid-State Lamp Distribution Center as listed below.

GENERAL ELECTRIC MINIATURE LAMP PRODUCTS SALES AND DISTRIBUTION CENTERS

SALES OFFICES (To Obtain Sales and Technical Information)

	Address	ZIP	Telephone
ATLANTA, GA.	120 Ottley Drive, N.E.—P.O. Box 13917	30324	875-0921
BALTIMORE, MD.	1401 Parker Rd. Mail: P.O. Box 7427, Baltimore, Md.	21227	242-5700
BOSTON, MASS.	50 Industrial Place, Newton Upper Falls, Mass.	02164	332-6200
CHARLOTTE, N.C.	1001 Tuckaseegee Rd.—P.O. Box 17362	28211	376-6585
CHICAGO, ILL.	550 West Jackson Blvd.	60606	332-4712
CINCINNATI, OHIO	49 Central Ave.	45202	421-6810
CLEVELAND, OHIO	1705 Noble Rd.—P.O. Box 2514	44112	266-4337
COLUMBUS, OHIO	800 Northwest Blvd.	43212	294-4115
DALLAS, TEXAS	6500 Cedar Springs Road	75235	358-5321
DENVER, COLO.	6501 Stapleton Dr., North	80216	388-4611
DETROIT, MICH.	15135 Hamilton Ave.	48203	883-0200
HONOLULU, HAWAII	Marine Finance Bldg., Room 413, 1109 Bethel St.	96813	537-3280
HOUSTON, TEXAS	5615 Lybbar Drive	77035	644-3264
INDIANAPOLIS, IND.	2511-F-1 East 46 St.	46205	547-5511
N. KANSAS CITY, MO.	535 East 14th Ave.	64116	471-0123
LOS ALTOS, CALIF.	349 First Street	94022	948-5000
LOS ANGELES, CALIF.	2747 S. Malt Ave.	90040	723-2541
MEMPHIS, TENN.	2021 S. Latham St.	38109	948-2642
MIAMI, FLA.	3655 N. W. 71st Street	33147	693-3811
MILWAUKEE, WIS.	8100 West Florist Ave., Mail: P.O. Box 299	53201	462-3860
MINNEAPOLIS, MINN.	500 Stinson Blvd.	55413	331-4050
NEWARK, N.J.	133 Boyd Street	07103	824-5200
NEW ORLEANS, LA.	4800 River Road, Mail: Box 10236, Jefferson Branch	70181	835-6421
NEW YORK, N.Y.	219 E. 42 St.	10017	750-2000
OAKLAND, CALIF.	999-98th Avenue	94603	569-3422
OKLAHOMA CITY, OKLA.	Executive Terrace Bldg., 2809 N.W. Expressway	73112	842-4028
PHILADELPHIA, PA.	Rt. 202, At Expressway, King of Prussia, Pa.	19406	688-5900
PITTSBURGH, PA.	238 W. Carson St.—P.O. Box 2801	15230	471-9050
PORTLAND, OREGON	2800 N.W. Nela Street	97210	221-5120
RICHMOND, VA.	2015 Staples Mill Rd., Mail: P.O. Box 8627	23226	355-3289
ROCHESTER, N.Y.	120 Allen's Creek Rd.	14618	454-2990
SALT LAKE CITY, UTAH	6501 Stapleton Drive, N., Denver, Colorado	80216	388-4611
SEATTLE, WASH.	4930 Third Ave., S.	98134	763-2870
ST. LOUIS, MO.	1530 Fairview Ave.	63132	429-6930
TAMPA, FLA.			
UTICA, N.Y.	c/o Radio Receiver Dept., P.O. Box 175, 1001 Broad St.	13501	733-0922

DISTRIBUTION CENTERS (To Order Lamps and to Obtain Shipping Information, Local Warehouse Stocks maintained at these Points)

	Address	ZIP	Telephone
	120 Ottley Drive, N.E.—P.O. Box 13917	30324	875-0921
	1401 Parker Road, Arbutus, Md.	21227	242-5700
	50 Industrial Place, Newton Upper Falls, Mass.	02164	332-6200
	1001 Tuckaseegee Rd.	28208	376-6585
	4201 So. Pulaski Rd.	60632	254-6161
	49 Central Ave.	45202	421-6810
	1705 Noble Rd.	44112	266-4404
	Cleveland Distr. Ctr., 1705 Noble Rd., Cleveland, Ohio	44112	266-4404
	6500 Cedar Springs Rd., Mail: P.O. Box 35425	75235	358-5321
	6501 Stapleton Dr., North	80216	388-4611
	15135 Hamilton Ave.	48203	883-0200
	Oakland Distr. Ctr., 999—98th Ave., Oakland, Calif.	94603	569-3422
	7402 Neuhaus Ave.—P.O. Box 12911	77017	644-3264
	Cincinnati Distr. Ctr., 49 Central Ave., Cincinnati, O.	45202	421-6810
	535 East 14th Ave.	64116	471-0123
	999-98th Ave., Oakland, Calif.	94603	569-3422
	2747 S. Malt Ave.	90040	723-2541
	2021 S. Latham St.	38109	948-2642
	3655 N. W. 71st Street	33147	693-3811
	8100 West Florist Ave., P.O. Box 299	53201	462-3860
	Northwestern Terminal Bldg., 500 Stinson Blvd.	55413	331-4050
	133 Boyd Street, Newark, N.J.	07103	622-8000
	4800 River Road, Mail: P.O. Box 10236, Jefferson Branch	70181	835-6421
	75-11 Woodhaven Blvd., Glendale, N.Y.	11227	896-6000
	999-98th Ave.—P.O. Box 6247	94603	569-3422
	Dallas Distr. Ctr., 6500 Cedar Springs Road, Dallas, Texas	75235	358-5321
	Route 202, At Expressway—P.O. Box 299 King of Prussia, Pa.	19406	688-5900
	238 W. Carson St.—P.O. Box 2801	15230	471-9050
	2800 N.W. Nela Street	97210	221-5120
	Baltimore Distr. Ctr., 1401 Parker Rd., Arbutus, Md.	21227	242-5700
	Buffalo Distr. Ctr., 770 Riverview Blvd., Tonawanda, N.Y.	14150	874-5180
	Salt Lake City Distr. Ctr., 1775 West 1500 South, Salt Lake City, Utah	84104	487-2276
	4930 Third Avenue South, Seattle, Wash.	98134	763-2870
	1530 Fairview Ave.	63132	429-6930
	11101 N. 46th St.—P.O. Box 16626, Tampa, Fla.	33617	988-7351
	Buffalo Distr. Ctr., 770 Riverside Blvd., Tonawanda, N.Y.	14150	874-5180

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MINIATURE LAMP PRODUCTS DEPARTMENT

GENERAL  ELECTRIC