

Features

- * LOW CURRENT REQUIREMENTS
- * HIGH LIGHT OUTPUT
- * RELIABLE AND RUGGED
- * IC COMPATIBLE

Absolute Maximum Ratings at T_A=25°C

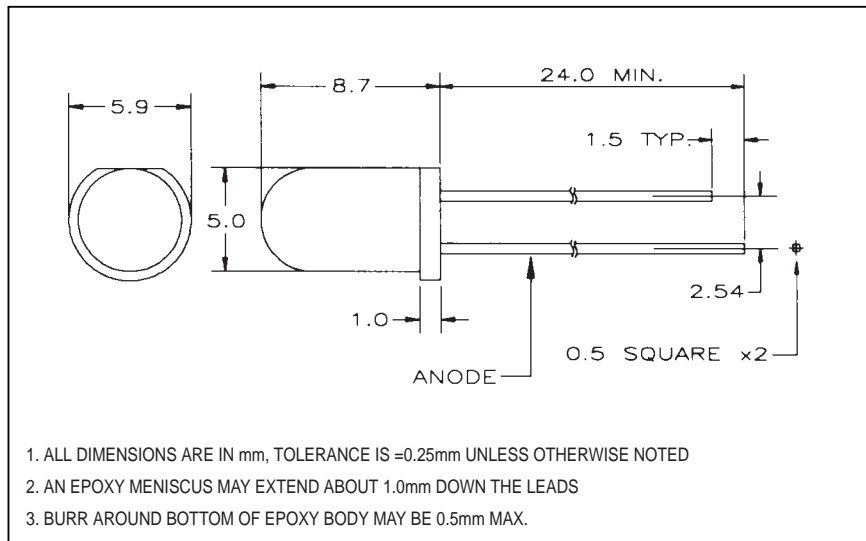
REVERSE VOLTAGE	GaAsP RED 3.0 V, OTHER 5.0 V
D.C. FORWARD CURRENT	30 mA
PULSE CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH)	100 mA
OPERATING TEMPERATURE RANGE	-25°C TO +85°C
STORAGE TEMPERATURE RANGE	-25°C TO +100°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY)	260°C FOR 5 SEC

Electrical/Optical Characteristics at T_A=25°C

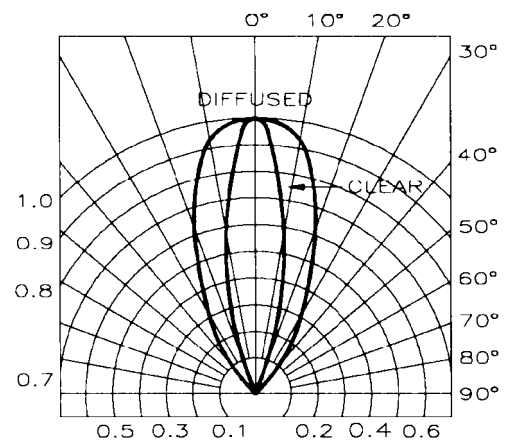
PART NUMBER	LED MATERIAL	CHIP EMITTING COLOR	LEN'S COLOR		PEAK WAVELENGTH @20mA(nm)	FORWARD VOLTAGE @20mA(V)		LUMINOUS INTENSITY @20mA(mcd)		VIEW ANGLE 2θ _{1/2} (deg)
			R.D.	W.D.		TYP.	MAX.	MIN.	TYP.	
LT1811-81	GaAsP	RED	R.D.	W.D.	655	1.7	2.0	1.6	2.7	44
LT1811G-81	GaP	RED	R.D.	W.D.	700	2.1	3.0	2.5	4.1	44
LT1821-81	GaP	GREEN	G.D.	W.D.	567	2.1	3.0	12.0	20.0	44
LT1831-81	GaAsP ON GaP	YELLOW	Y.D.	W.D.	585	2.1	3.0	9.8	16.4	44
LT1841-81	GaAsP ON GaP	ORANGE	O.D.	W.D.	635	2.1	3.0	13.9	23.1	44
LT1841R-81	GaAsP ON GaP	ORANGE	R.D.		635	2.1	3.0	13.9	23.1	44
LT1813-81	GaAsP	RED	W.C.	R.C.	655	1.7	2.0	5.5	9.2	22
LT1813G-81	GaP	RED	W.C.	R.C.	700	2.1	3.0	8.4	14.0	22
LT1823-81	GaP	GREEN	W.C.	G.C.	567	2.1	3.0	40.9	68.1	22
LT1833-81	GaAsP ON GaP	YELLOW	W.C.	Y.C.	585	2.1	3.0	33.5	55.8	22
LT1843-81	GaAsP ON GaP	ORANGE	W.C.	O.C.	635	2.1	3.0	47.3	78.8	22
	LT1844R-81	GaAsP ON GaP		R.C.	635	2.1	3.0	47.3	78.8	22

- (1) LENS COLOR G.D. GREEN DIFFUSED Y.C. YELLOW CLEAR (2) SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
 R.D. RED DIFFUSED O.D. ORANGE DIFFUSED G.C. GREEN CLEAR (3) ALL ABOVE COMPONENTS ARE CONSIDERED. DEVIATIONS FROM STATED SPECIFICATIONS WILL REQUIRE A NEW PART NUMBER BE ASSIGNED.
 Y.D. YELLOW DIFFUSED W.C. WATER CLEAR O.C. ORANGE CLEAR
 W.D. WHITE DIFFUSED R.C. RED CLEAR

Package Dimensions



Radiation Pattern



Features

- * LOW CURRENT REQUIREMENTS
- * HIGH LIGHT OUTPUT
- * RELIABLE AND RUGGED
- * IC COMPATIBLE

Absolute Maximum Ratings at T_A=25°C

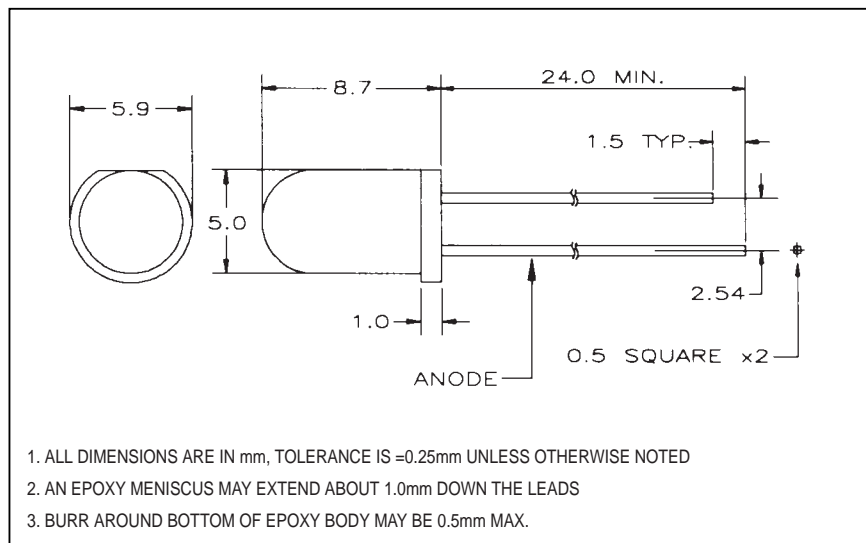
REVERSE VOLTAGE	GaAsP RED 3.0 V, OTHER 5.0 V
D.C. FORWARD CURRENT	30 mA
PULSE CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH)	100 mA
OPERATING TEMPERATURE RANGE	-25°C TO +85°C
STORAGE TEMPERATURE RANGE	-25°C TO +100°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY)	260°C FOR 5 SEC

Electrical/Optical Characteristics at T_A=25°C

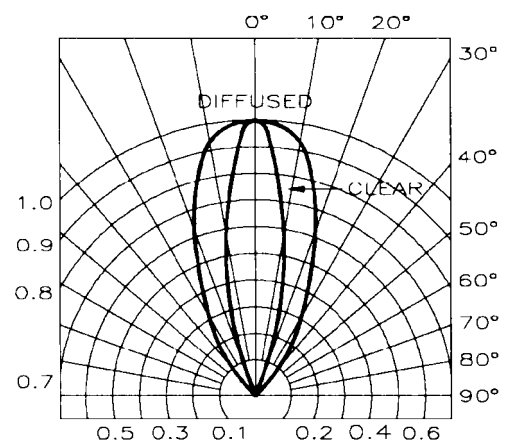
PART NUMBER	LED CHIP	LEN'S COLOR	PEAK WAVELENGTH @20mA(nm)	FORWARD VOLTAGE @20mA(V)		LUMINOUS INTENSITY @20mA(mcd)		VIEW ANGLE 2θ _{1/2} (deg)		
				MATERIAL	EMITTING COLOR	TYP.	MAX.		MIN.	TYP.
_____	GaAsP	RED	655	R.D.	W.D.	_____	_____	_____		
_____	GaP	RED	700	R.D.	W.D.	_____	_____	_____		
LT1821-81-LC	LT1822-81-LC	GaP	GREEN	G.D.	W.D.	1.8	2.2	1.3	2.2	44
LT1831-81-LC	LT1832-81-LC	GaAsP ON GaP	YELLOW	Y.D.	W.D.	1.8	2.2	1.1	1.8	44
LT1841-81-LC	LT1842-81-LC	GaAsP ON GaP	ORANGE	O.D.	W.D.	1.8	2.2	1.5	2.6	44
LT1841R-81-LC		GaAsP ON GaP	ORANGE	R.D.		1.8	2.2	1.5	2.6	44
_____	GaAsP	RED	655	W.C.	R.C.	_____	_____	_____	_____	_____
_____	GaP	RED	700	W.C.	R.C.	_____	_____	_____	_____	_____
LT1823-81-LC	LT1824-81-LC	GaP	GREEN	W.C.	G.C.	1.8	2.2	4.5	7.6	22
LT1833-81-LC	LT1834-81-LC	GaAsP ON GaP	YELLOW	W.C.	Y.C.	1.8	2.2	3.7	6.2	22
LT1843-81-LC	LT1844-81-LC	GaAsP ON GaP	ORANGE	W.C.	O.C.	1.8	2.2	5.3	8.8	22
	LT1844R-81-LC	GaAsP ON GaP	ORANGE		R.C.	1.8	2.2	5.3	8.8	22

- (1) LENS COLOR G.D. GREEN DIFFUSED Y.C. YELLOW CLEAR (2) SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
- R.D. RED DIFFUSED O.D. ORANGE DIFFUSED G.C. GREEN CLEAR (3) ALL ABOVE COMPONENTS ARE CONSIDERED. DEVIATIONS FROM STATED SPECIFICATIONS WILL REQUIRE A NEW PART NUMBER BE ASSIGNED.
- Y.D. YELLOW DIFFUSED W.C. WATER CLEAR O.C. ORANGE CLEAR
- W.D. WHITE DIFFUSED R.C. RED CLEAR

Package Dimensions



Radiation Pattern



Features

- * BUILT-IN OSCILLATOR AND RESISTOR
- * HIGH LIGHT OUTPUT
- * RELIABLE AND RUGGED

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

OPERATING VOLTAGE	3 TO 5.0 V
PEAK REVERSE VOLTAGE	0.4 V
OPERATING TEMPERATURE RANGE	0°C TO +70°C
STORAGE TEMPERATURE RANGE	-25°C TO +85°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY)	260°C FOR 5 SEC

Electrical/Optical Characteristics at $T_A=25^\circ\text{C}$

PART NUMBER	EMITTING COLOR	LEN'S COLOR	PEAK WAVELENGTH @5V (nm)	APPLIED VOLTAGE (V)		LUMINOUS INTENSITY @5V (mcd)		FLASHING FREQUENCY @5V (Hz)	VIEW ANGLE $2\theta_{1/2}$ (deg)
				TYP.	MAX.	MIN.	TYP.		
LT1811GF-91	RED	R.D.	700	3.0	5.0	0.2	0.5	2.4	40
LT1821F-91	GREEN	G.D.	567	3.0	5.0	1.0	2.4	2.4	40
LT1831F-91	YELLOW	Y.D.	585	3.0	5.0	0.8	2.0	2.4	40
LT1841F-91	ORANGE	O.D.	635	3.0	5.0	1.1	2.8	2.4	40
LT1841RF-91	ORANGE	R.D.	635	3.0	5.0	1.1	2.8	2.4	40

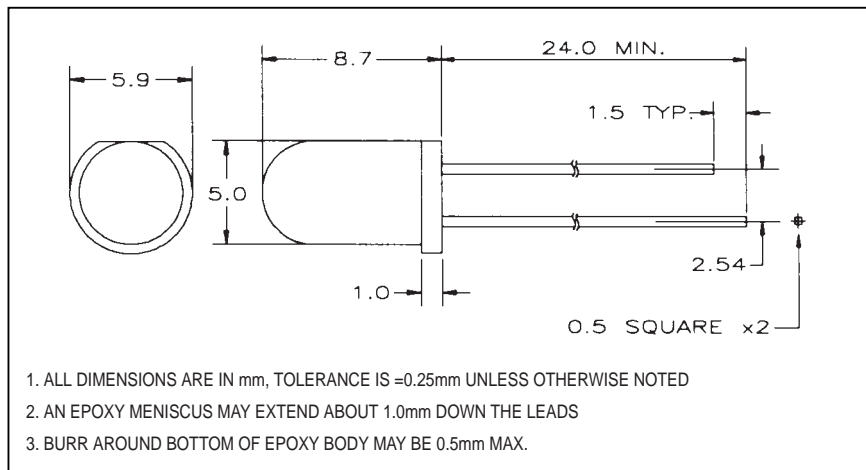
(1) LENS COLOR R.D. RED DIFFUSED G.D. GREEN DIFFUSED
 Y.D. YELLOW DIFFUSED O.D. ORANGE DIFFUSED

(2) SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

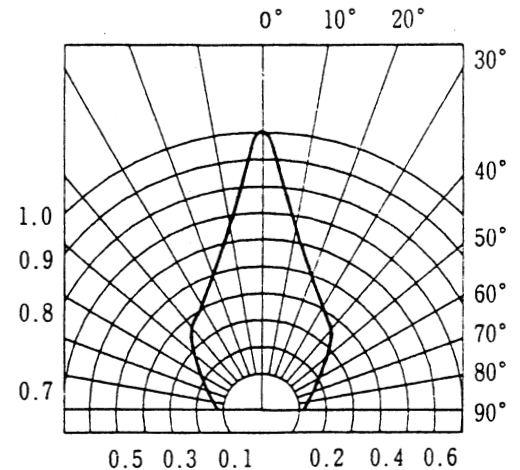
(3) ALL ABOVE COMPONENTS ARE CONSIDERED.

DEVIATIONS FROM STATED SPECIFICATIONS WILL REQUIRE A NEW PART NUMBER BE ASSIGNED.

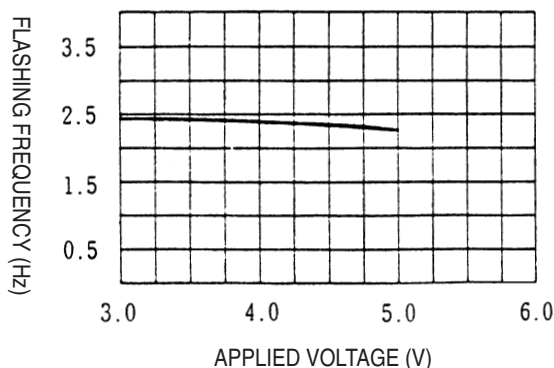
Package Dimensions



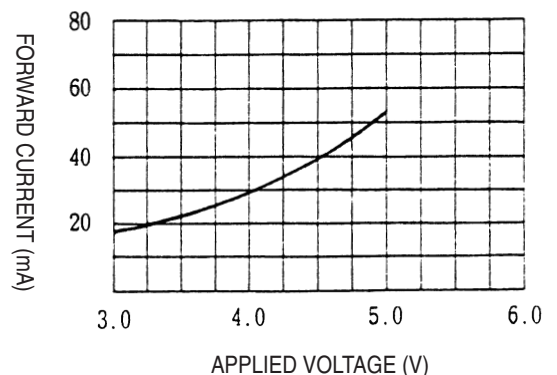
Radiation Pattern



Flashing Frequency VS. Applied Voltage



Forward Current VS. Applied Voltage



Features

- * HIGH EFFICIENCY GREEN
- * HIGH LIGHT OUTPUT
- * RELIABLE AND RUGGED
- * IC COMPATIBLE

Absolute Maximum Ratings at T_A=25°C

REVERSE VOLTAGE	5.0 V
D.C. FORWARD CURRENT	30 mA
PULSE CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH)	100 mA
OPERATING TEMPERATURE RANGE	-25°C TO +85°C
STORAGE TEMPERATURE RANGE	-25°C TO +100°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY)	260°C FOR 5 SEC

Electrical/Optical Characteristics at T_A=25°C

PART NUMBER	LED CHIP		LEN'S COLOR	PEAK WAVELENGTH @20mA(nm)	FORWARD VOLTAGE @20mA(V)		LUMINOUS INTENSITY @20mA(mcd)		VIEW ANGLE 2θ _{1/2} (deg)
	MATERIAL	EMITTING COLOR			TYP.	MAX.	MIN.	TYP.	
LT1821-81-HE	GaP	GREEN	G.D.	567	2.1	3.0	58	96	41
LT1822-81-HE	GaP	GREEN	W.D.	567	2.1	3.0	58	96	41
LT1823-81-HE	GaP	GREEN	W.C.	567	2.1	3.0	300	500	19
LT1824-81-HE	GaP	GREEN	G.C.	567	2.1	3.0	300	500	19

(1) LENS COLOR

G.D. GREEN DIFFUSED

W.D. WHITE DIFFUSED

G.C. GREEN CLEAR

W.C. WATER CLEAR

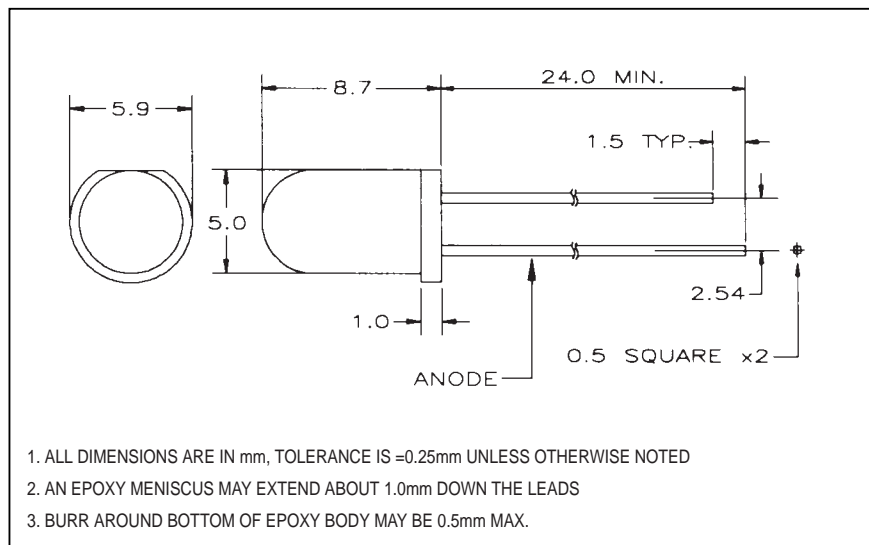
(2) SPECIFICATIONS ARE SUBJECT TO CHANGE

WITHOUT NOTICE.

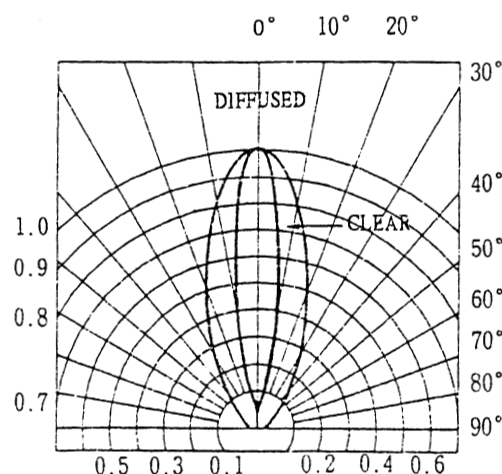
(3) ALL ABOVE COMPONENTS ARE CONSIDERED.

DEVIATIONS FROM STATED SPECIFICATIONS WILL REQUIRE A NEW PART NUMBER BE ASSIGNED.

Package Dimensions



Radiation Pattern



Features

- * ULTRABRIGHT YELLOW
- * HIGH LIGHT OUTPUT
- * RELIABLE AND RUGGED
- * IC COMPATIBLE

Absolute Maximum Ratings at T_A=25°C

REVERSE VOLTAGE (<100 μA).....	4.0 V
D.C. FORWARD CURRENT	30 mA
PULSE CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH)	100 mA
OPERATING TEMPERATURE RANGE	-25°C TO +85°C
STORAGE TEMPERATURE RANGE	-25°C TO +100°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY)	260°C FOR 5 SEC

Electrical/Optical Characteristics at T_A=25°C

PART NUMBER	LED CHIP		LEN'S COLOR	PEAK WAVELENGTH @20mA(nm)	FORWARD VOLTAGE @20mA(V)		LUMINOUS INTENSITY @20mA(mcd)		VIEW ANGLE 2θ _{1/2} (deg)
	MATERIAL	EMITTING COLOR			TYP.	MAX.	MIN.	TYP.	
LT1831-81-UR	InGaAlP ON GaAs	YELLOW	Y.D.	595	2.1	2.4	255	424	41
LT1832-81-UR	InGaAlP ON GaAs	YELLOW	W.D.	595	2.1	2.4	255	424	41
LT1833-81-UR	InGaAlP ON GaAs	YELLOW	W.C.	595	2.1	2.4	800	1400	19
LT1834-81-UR	InGaAlP ON GaAs	YELLOW	Y.C.	595	2.1	2.4	800	1400	19

(1) LENS COLOR

Y.D. YELLOW DIFFUSED

W.D. WHITE DIFFUSED

Y.C. YELLOW CLEAR

W.C. WATER CLEAR

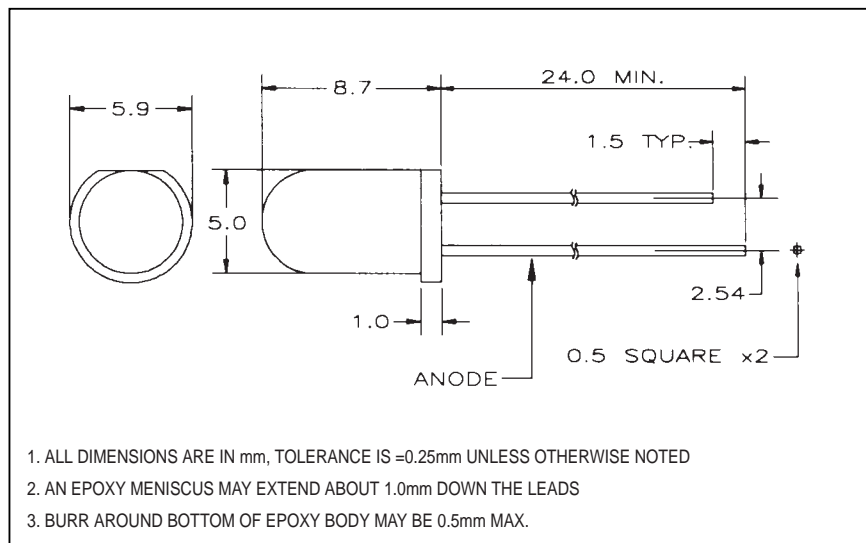
(2) SPECIFICATIONS ARE SUBJECT TO CHANGE

WITHOUT NOTICE.

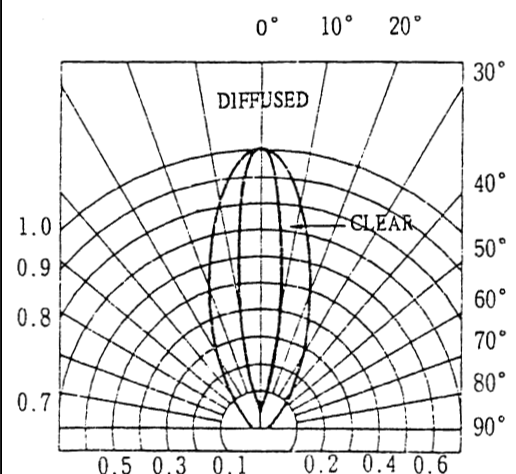
(3) ALL ABOVE COMPONENTS ARE CONSIDERED.

DEVIATIONS FROM STATED SPECIFICATIONS WILL REQUIRE A NEW PART NUMBER BE ASSIGNED.

Package Dimensions



Radiation Pattern



Features

- * ULTRABRIGHT YELLOW
- * HIGH LIGHT OUTPUT
- * RELIABLE AND RUGGED
- * IC COMPATIBLE

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

REVERSE VOLTAGE (<100 μA)	4.0 V
D.C. FORWARD CURRENT	30 mA
PULSE CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH)	100 mA
OPERATING TEMPERATURE RANGE	-25°C TO +85°C
STORAGE TEMPERATURE RANGE	-25°C TO +100°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY)	260°C FOR 5 SEC

Electrical/Optical Characteristics at $T_A=25^\circ\text{C}$

PART NUMBER	LED CHIP		LEN'S COLOR	PEAK WAVELENGTH @20mA(nm)	FORWARD VOLTAGE @20mA(V)		LUMINOUS INTENSITY @20mA(mcd)		VIEW ANGLE $2\theta_{1/2}$ (deg)
	MATERIAL	EMITTING COLOR			TYP.	MAX.	MIN.	TYP.	
LT1833-UR-R00	InGaAlP ON GaAs	YELLOW	W.C.	595	2.1	2.4	1120	1860	9
LT1834-UR-R00	InGaAlP ON GaAs	YELLOW	Y.C.	595	2.1	2.4	1120	1860	9

(1) LENS COLOR

Y.C. YELLOW CLEAR

W.C. WATER CLEAR

(2) SPECIFICATIONS ARE SUBJECT TO CHANGE

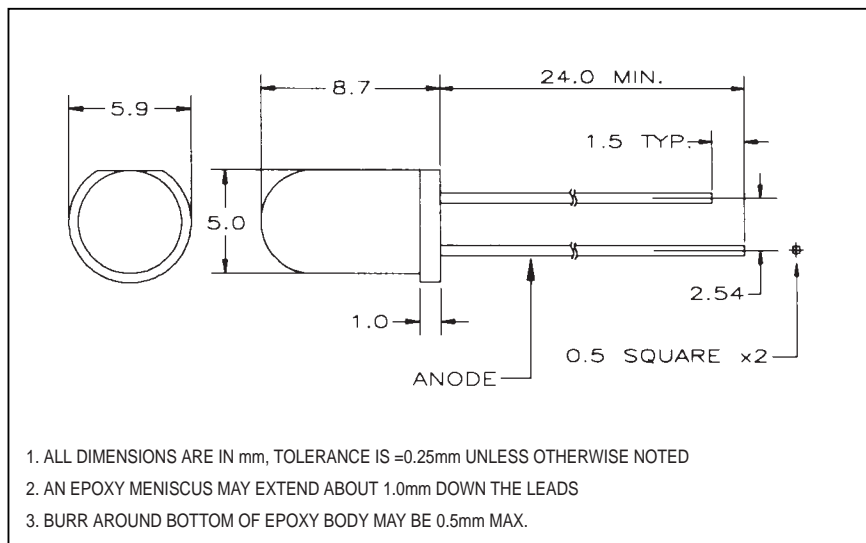
WITHOUT NOTICE.

(3) ALL ABOVE COMPONENTS ARE CONSIDERED.

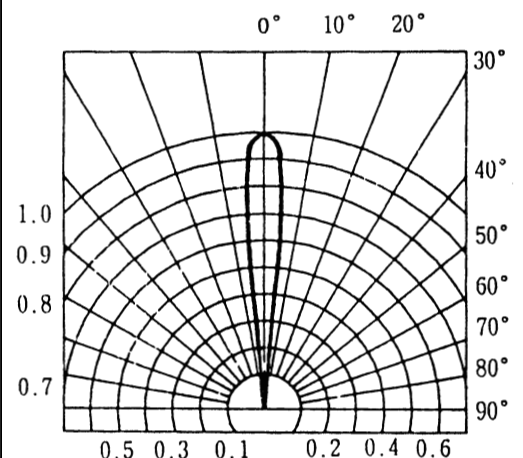
DEVIATIONS FROM STATED SPECIFICATIONS WILL

REQUIRE A NEW PART NUMBER BE ASSIGNED.

Package Dimensions



Radiation Pattern



Features

- * SUPERBRIGHT RED AND ULTRABRIGHT RED
- * HIGH LIGHT OUTPUT
- * RELIABLE AND RUGGED
- * IC COMPATIBLE

Absolute Maximum Ratings at T_A=25°C

REVERSE VOLTAGE (<100 μA).....	4.0 V
D.C. FORWARD CURRENT	30 mA
PULSE CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH)	100 mA
OPERATING TEMPERATURE RANGE	-25°C TO +85°C
STORAGE TEMPERATURE RANGE	-25°C TO +100°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY)	260°C FOR 5 SEC

Electrical/Optical Characteristics at T_A=25°C

PART NUMBER	LED CHIP		LEN'S COLOR	PEAK WAVELENGTH @20mA(nm)	FORWARD VOLTAGE @20mA(V)		LUMINOUS INTENSITY @20mA(mcd)		VIEW ANGLE 2θ _{1/2} (deg)
	MATERIAL	EMITTING COLOR			TYP.	MAX.	MIN.	TYP.	
LT1871-81	GaAlAs ON GaAs	RED	R.D.	660	1.7	2.2	180	300	36
LT1872-81	GaAlAs ON GaAs	RED	W.D.	660	1.7	2.2	180	300	36
LT1873-81	GaAlAs ON GaAs	RED	W.C.	660	1.7	2.2	600	1000	12
LT1874-81	GaAlAs ON GaAs	RED	R.C.	660	1.7	2.2	600	1000	12
LT1871-81-UR	GaAlAs ON GaAlAs	RED	R.D.	660	1.9	2.5	360	600	36
LT1872-81-UR	GaAlAs ON GaAlAs	RED	W.D.	660	1.9	2.5	360	600	36
LT1873-81-UR	GaAlAs ON GaAlAs	RED	W.C.	660	1.9	2.5	1200	2000	12
LT1874-81-UR	GaAlAs ON GaAlAs	RED	R.C.	660	1.9	2.5	1200	2000	12

(1) LENS COLOR

R.D. RED DIFFUSED

W.D. WHITE DIFFUSED

R.C. RED CLEAR

W.C. WATER CLEAR

(2) SPECIFICATIONS ARE SUBJECT TO CHANGE

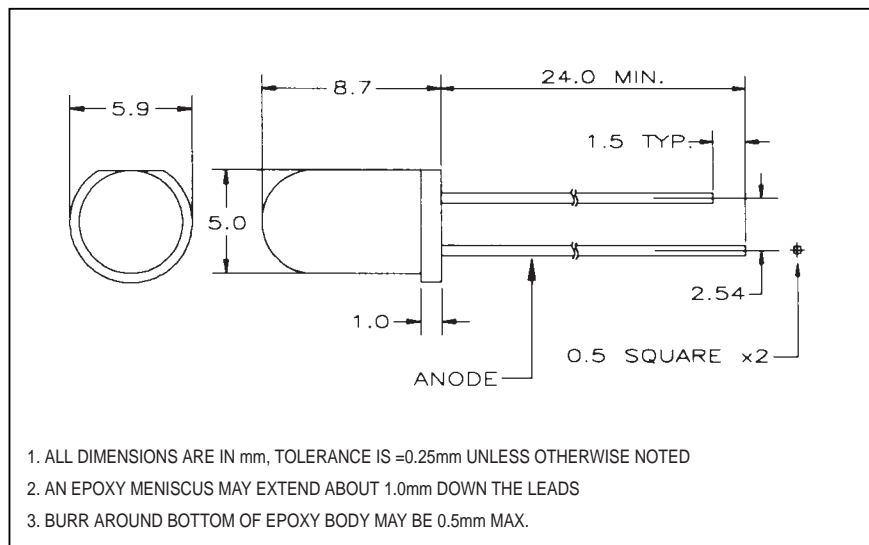
WITHOUT NOTICE.

(3) ALL ABOVE COMPONENTS ARE CONSIDERED.

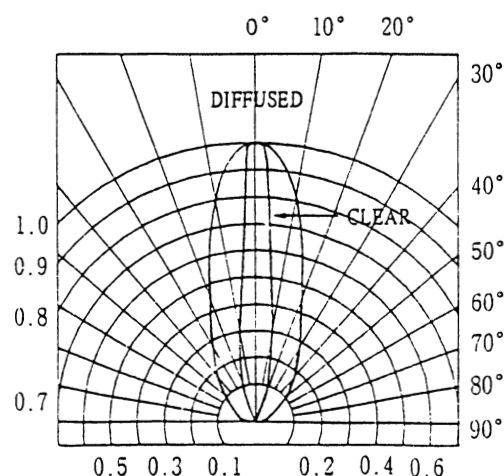
DEVIATIONS FROM STATED SPECIFICATIONS WILL

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Package Dimensions



Radiation Pattern



Features

- * LOW CURRENT REQUIREMENTS
- * HIGH LIGHT OUTPUT
- * RELIABLE AND RUGGED
- * IC COMPATIBLE

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

REVERSE VOLTAGE	5.0 V
D.C. FORWARD CURRENT	30 mA
PULSE CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH)	100 mA
OPERATING TEMPERATURE RANGE	-20°C TO +80°C
STORAGE TEMPERATURE RANGE	-25°C TO +100°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY)	260°C FOR 5 SEC

Electrical/Optical Characteristics at $T_A=25^\circ\text{C}$

PART NUMBER	LED CHIP		LEN'S COLOR	PEAK WAVELENGTH @20mA(nm)	FORWARD VOLTAGE @20mA(V)		LUMINOUS INTENSITY @20mA(mcd)		VIEW ANGLE $2\theta_{1/2}$ (deg)
	MATERIAL	EMITTING COLOR			TYP.	MAX.	MIN.	TYP.	
LT18B1-81-SB	GaN ON SiC	BLUE	B.D.	430	3.8	4.5	61	102	44
LT18B2-81-SB	GaN ON SiC	BLUE	W.D.	430	3.8	4.5	61	102	44
LT18B3-81-SB	GaN ON SiC	BLUE	W.C.	430	3.8	4.5	200	340	22
LT18B4-81-SB	GaN ON SiC	BLUE	B.C.	430	3.8	4.5	200	340	22

(1) LENS COLOR

B.D. BLUE DIFFUSED

W.D. WHITE DIFFUSED

B.C. BLUE CLEAR

W.C. WATER CLEAR

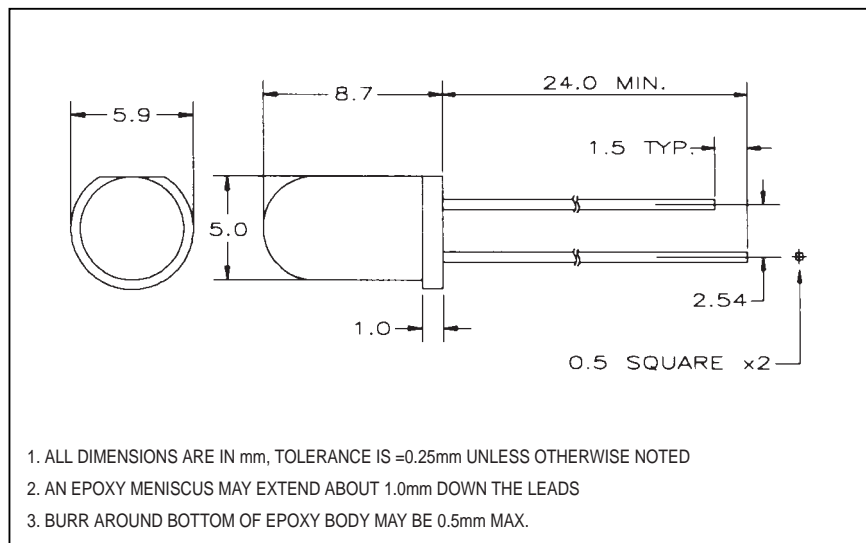
(2) SPECIFICATIONS ARE SUBJECT TO CHANGE

WITHOUT NOTICE.

(3) ALL ABOVE COMPONENTS ARE CONSIDERED.

DEVIATIONS FROM STATED SPECIFICATIONS WILL REQUIRE A NEW PART NUMBER BE ASSIGNED.

Package Dimensions



Radiation Pattern

