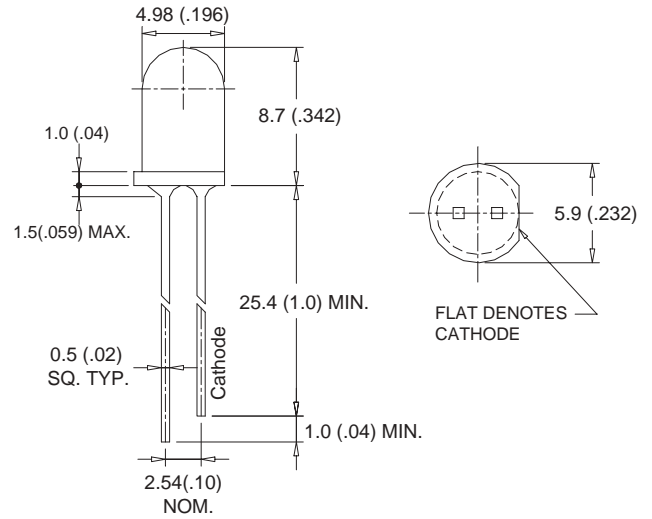


LTR	REVISION	DATE	APPD
E	011706-RM04:ADD RADIANT INTENSITY	01-18-06	RM

**Features:**

1. Chip material: InGaN / SiC
2. Emitted color : Ultraviolet
3. Lens Appearance : Water Clear
4. Low power consumption.
5. High efficiency.
6. Versatile mounting on P.C. board or panel.
7. Low current requirement.
8. 5mm diameter package
9. This product doesn't contain restricted substances, complies with ROHS standards.

**Package dimensions:**



**Applications:**

1. TV sets
2. Monitor
3. Telephones
4. Computer
5. Circuit board

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (0.01") unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package
4. Specifications are subject to change without notice.

	<h2 style="margin: 0;">CAUTION</h2> <ul style="list-style-type: none"> <li>This UV LED during operation radiates intense UV light.</li> <li>Do not look directly into the UV light during operation of device. This can be harmful to the eyes even for brief period due to the intense UV light.</li> <li>If viewing the UV light is necessary, please use UV filtered glasses to avoid damage by the UV light.</li> <li>If the UV LED in your product might be viewed directly, please affix a caution label to your product to that effect.</li> </ul> <p style="text-align: center;">Avoid direct eye exposure to UV light. Keep out of reach of children.</p>
--	--

**Absolute maximum ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	120	mW
Forward Current	I <sub>F</sub>	30	mA
Peak Forward Current*	I <sub>FP</sub>	150	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	Topr	-40°C~80°C	°C
Storage Temperature	T <sub>stg</sub>	-40°C~80°C	°C
Soldering Temperature	T <sub>sol</sub>	260°C (for 5 seconds)	°C

\* Condition for I<sub>fp</sub> is pulse of 1/10 duty and 0.1msec width.

 <b>LEDTRONICS, INC.™</b> 23105 KASHIWA COURT TORRANCE, CA 90505	<b>-PROPRIETARY-</b> <small>This document contains Proprietary information of LEDTRONICS, INC.™ It may not be copied, used or disclosed for any purpose without the prior express written consent of LEDTRONICS, INC.™</small>	<b>TITLE</b> <h2 style="margin: 0;">L200CUV405-12D</h2>			
	<small>.XXX ± .010 TOLERANCE PER ANSI-Y14.5 .XX ± .025 (UNLESS OTHERWISE STATED) ANGLES ± 0°, 30' FRACT. ± 1/32</small>	<b>DWG NO</b> DSDC0274	<b>SCALE</b> NTS	<b>SHEET</b> 1 OF 2	<b>DATE</b> 09-26-01
	<b>CODE IDENT NO.</b> 8Z410	<b>DWG BY</b> RM	<b>CHK BY</b> PL 01-23-06	<b>QA</b> GZ 01-23-06	<b>MFG</b> CUSTOMER

## Electrical and optical characteristics(Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Forward Voltage	V	I <sub>F</sub> =20mA	-	3.5	4.0	V
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> =20mA	-	55	-	mcd
Radiant intensity		I <sub>F</sub> =20mA	-	48000	-	uW/sr
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	100	uA
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =20mA	-	405	-	nm
Dominant Wavelength	λ <sub>d</sub>	I <sub>F</sub> =20mA	400	-	410	nm
Chromaticity Coordinates	X	I <sub>F</sub> =20mA	-	0.171	-	
	Y	I <sub>F</sub> =20mA	-	0.006	-	
Spectral Line Half-width	Δλ	I <sub>F</sub> =20mA	-	26	-	nm
Viewing Angle	2θ <sub>1/2</sub>	I <sub>F</sub> =20mA	-	15	-	deg

### Typical electro-optical characteristics curves

Fig.1 Relative intensity vs. Wavelength

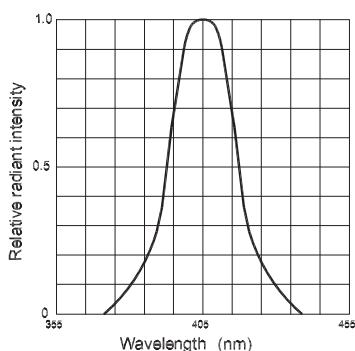


Fig.2 Forward current derating curve vs. Ambient temperature

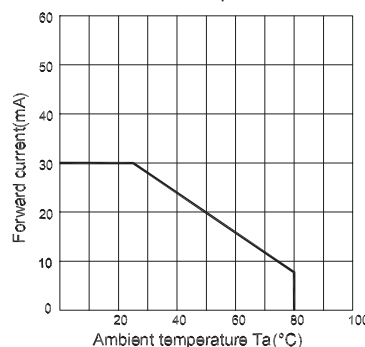


Fig.3 Forward current vs. Forward voltage

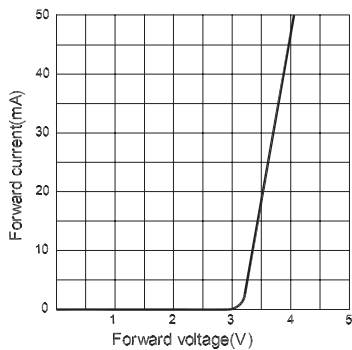


Fig.4 Relative luminous intensity vs. Ambient temperature

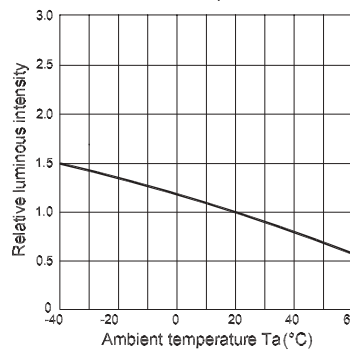


Fig.5 Relative luminous intensity vs. Forward current

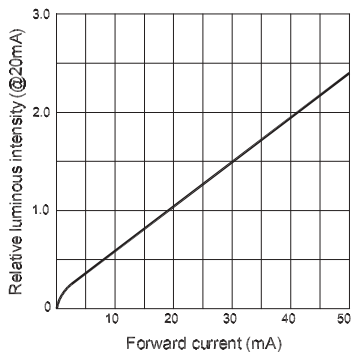
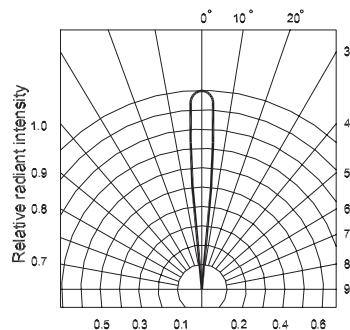


Fig.6 Radiation diagram



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.XXX ± .010      TOLERANCE PER ANSI-Y14.5  
 .XX ± .025      (UNLESS OTHERWISE STATED)  
 ANGLES ± 0°, 30'  
 FRACT. ± 1/32

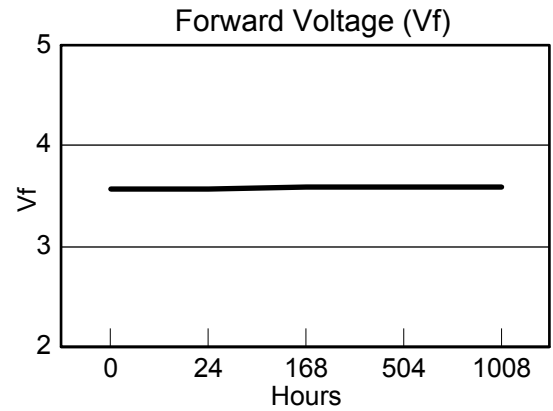
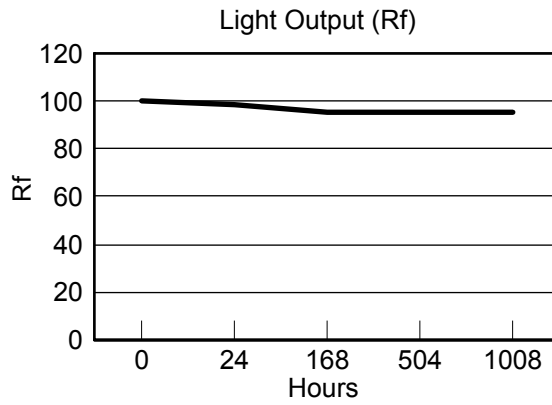
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DWG NO	SCALE	SHEET	DATE
DSDC0274-A	1:1	2 OF 2	10-06-05

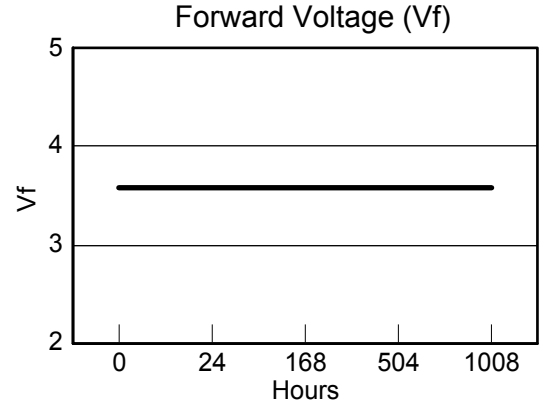
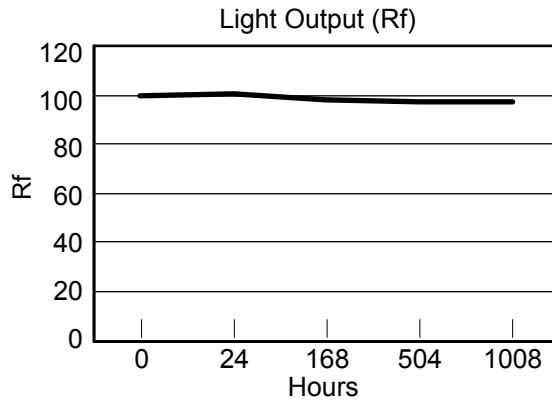
CODE IDENT NO.	DWG BY	CHK BY	QA	MNFG	CUSTOMER
8Z410	RM				

# Reliability Summary: MB UV

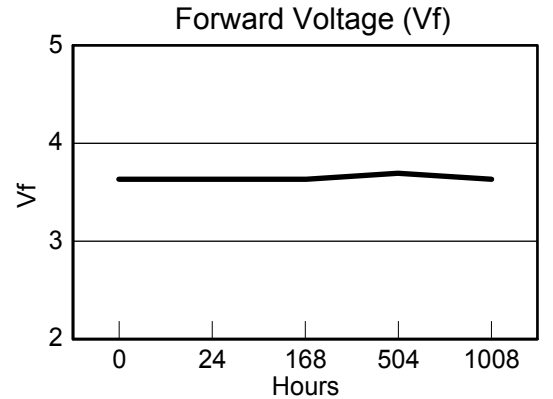
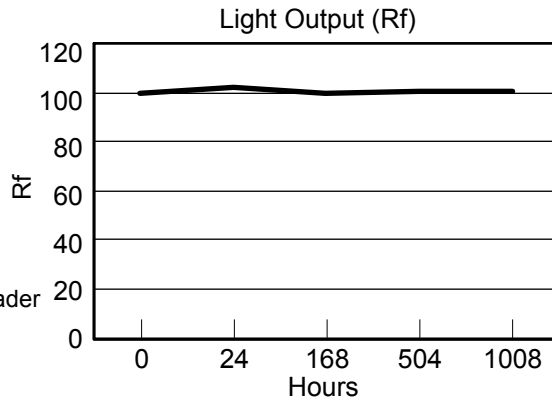
HTOL  
20 mA DC  
100°C  
85% RH  
Au-Plated Header



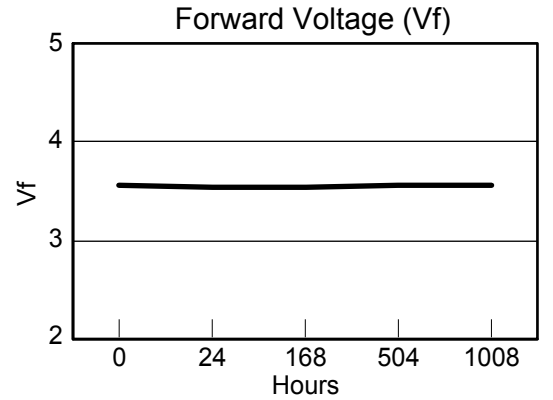
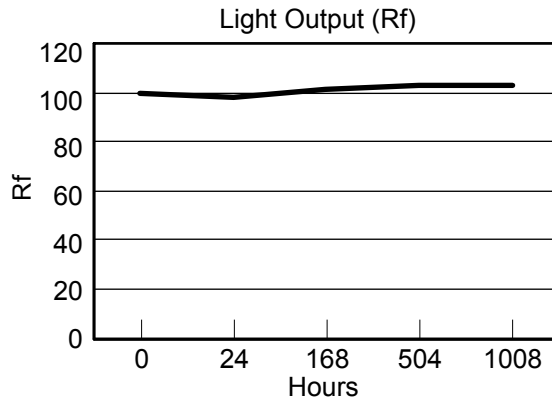
RTOL  
30 mA DC  
25°C  
Pkg: TO-39  
Au-Plated Header



WHTOL  
10 mA DC  
85°C  
85% RH  
Pkg: TO-39 Au-Plated Header



LTOL  
20 mA DC  
-40°C  
Pkg: TO-39  
Au-Plated Header



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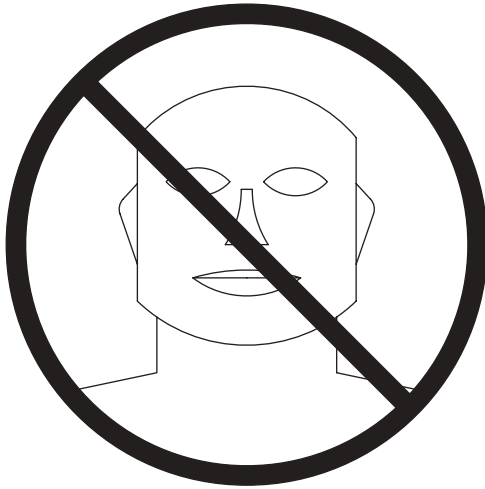
.XXX ± .010 TOLERANCE PER ANSI-Y14.5  
.XX ± .025 (UNLESS OTHERWISE STATED)  
ANGLES ± 0°,30'  
FRACT. ± 1/32

TITLE **ULTRAVIOLET LED RELIABILITY**  
MB UV: Chips C395-MB290, C405-MB290

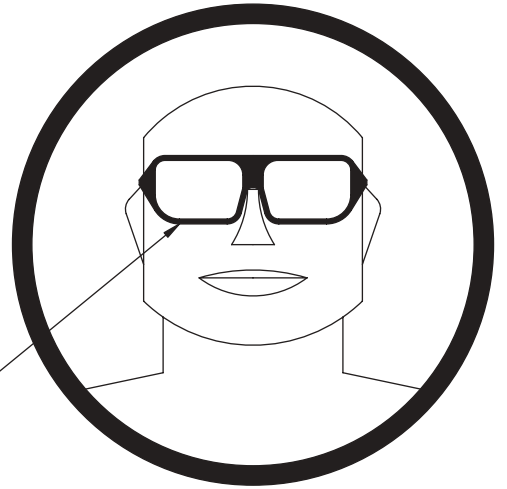
DWG NO QA0042	SCALE	SHEET 1 OF 1	DATE 05-23-06
CODE IDENT NO. 8Z410	DWG BY JAG	CHK BY QA	MNFG CUSTOMER

LTR	REVISION	DATE	APPD
-	RELEASED	03-10-00	JCH

# ULTRAVIOLET LIGHT SAFETY PROCEDURE



INSPECTORS AND OTHER  
PERSONS VIEWING  
ULTRAVIOLET LIGHT **MUST**  
WEAR PROPER PROTECTIVE  
EYEWEAR



WILLSON UV GLASSES  
PART # F117501

	<h2>CAUTION</h2>
	<ul style="list-style-type: none"> <li>◦ This UV LED during operation radiates intense UV light.</li> <li>◦ Do not look directly into the UV light during operation of device. This can be harmful to the eyes even for brief period due to the intense UV light.</li> <li>◦ If viewing the UV light is necessary, please use UV filtered glasses to avoid damage by the UV light.</li> <li>◦ If the UV LED in your product might be viewed directly, please affix a caution label to your product to that effect.</li> </ul> <p style="text-align: center;">Avoid direct eye exposure to UV light. Keep out of reach of children.</p>

**NORMAL SUNGLASSES WILL NOT  
PROTECT YOU FROM UV LIGHT  
DAMAGE.**

**YOU MUST USE THE APPROVED UV  
GLASSES**

**ONLY THOSE PERSONS WHO HAVE COMPLETED UV TESTING  
CERTIFICATION ARE TO VIEW THIS PRODUCT**

**THE SAFETY OF ALL EMPLOYEES IS THE UTMOST CONCERN OF  
LEDTRONICS**

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.XX ± .025 (UNLESS OTHERWISE STATED)  
ANGLES ± 0°, 30'  
FRACT. ± 1/32

TITLE  
**UV LIGHT TESTING INSTRUCTIONS**

DWG NO	SCALE	SHEET	DATE
QA0028	NTS	1 OF 1	03-10-00
CODE IDENT NO.	DWG BY	CHK BY	CUSTOMER
8Z410	JCH	QA CG 08-09-00	MFG RA 12-01-00