SunLED
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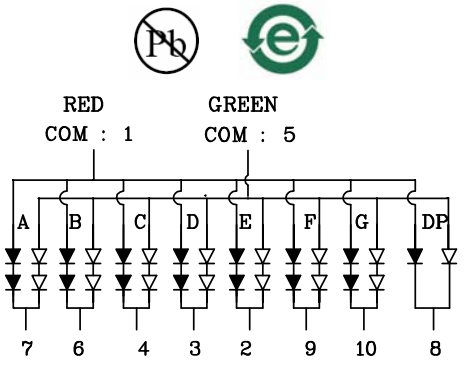
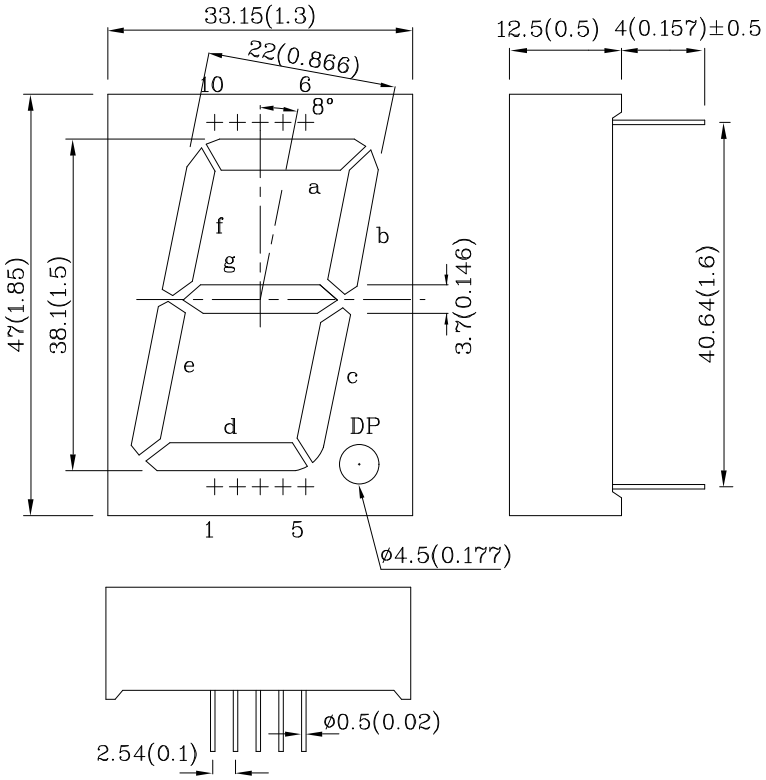
Part Number: **DURG38A**

38.1mm (1.5") SINGLE DIGIT NUMERIC DISPLAY

Features

- 1.5 INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- HIGH LIGHT OUTPUT.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- I.C. COMPATIBLE.
- MECHANICALLY RUGGED.
- STANDARD : GRAY FACE, WHITE SEGMENT.
- RoHS COMPLIANT.





Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T_A=25°C)		**UR (GaAsP/ GaP)**	**UG (GaP)**	**Unit**
Reverse Voltage Per Segment or (Dp)	V_R	10(5)	10(5)	V
Forward Current Per Segment or (Dp)	I_F	30(30)	25(25)	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width Per Segment or (Dp)	i_{FS}	160(160)	140 (140)	mA
Power Dissipation Per Segment or (Dp)	P_T	150 (75)	125 (62.5)	mW
Operating Temperature	T_A	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3-5 Seconds			

Operating Characteristics (T_A=25°C)		**UR (GaAsP/ GaP)**	**UG (GaP)**	**Unit**
Forward Voltage (Typ.) (I_F=10mA) Per Segment or (Dp)	V_F	3.8 (1.9)	4.0 (2.0)	V
Forward Voltage (Max.) (I_F=10mA) Per Segment or (Dp)	V_F	5.0 (2.5)	5.0 (2.5)	V
Reverse Current (Max.) (V_R=10V(5V)) Per Segment or (Dp)	I_R	10 (10)	10 (10)	uA
Wavelength of Peak Emission (Typ.) I_F=10mA)	λ P	627	565	nm
Wavelength of Dominant Emission (Typ.) (I_F=10mA)	λ D	625	568	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=10mA)	Δλ	45	30	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	15	15	pF

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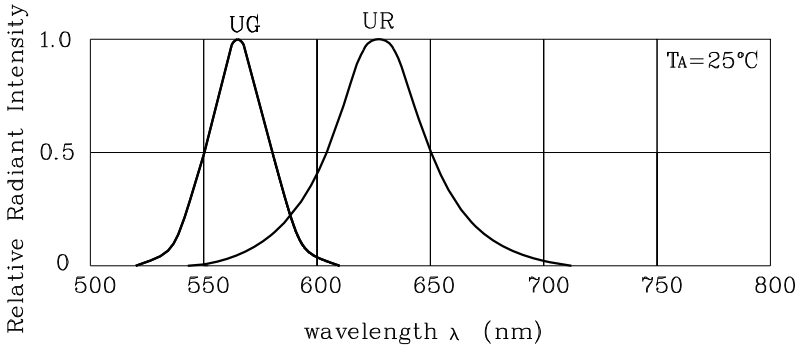
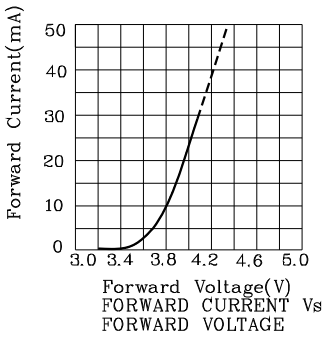
Part Number	Emitting Color	Emitting Material	Luminous Intensity (IF=10mA) ucd		Wavelength nm λ P	Description
			min.	typ.		
DURG38A	Red	GaAsP/GaP	3000	15990	627	Common Anode, Rt. Hand Decimal
	Green	GaP	4700	23990	565	

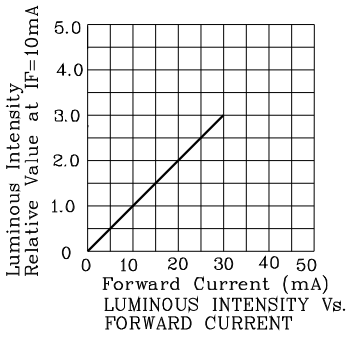


RELATIVE INTENSITY Vs. WAVELENGTH

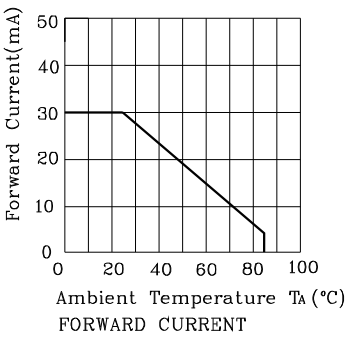
❖ **UR**



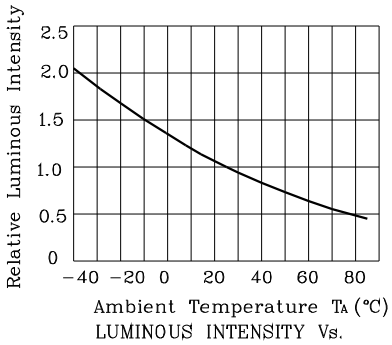
FORWARD CURRENT Vs FORWARD VOLTAGE



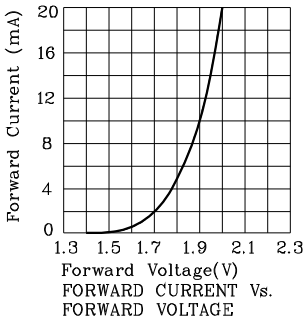
LUMINOUS INTENSITY Vs. FORWARD CURRENT



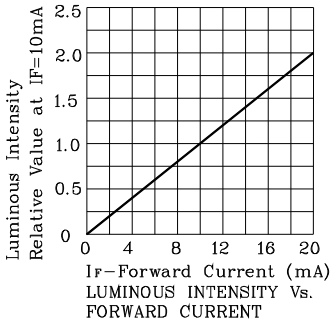
FORWARD CURRENT DERATING CURVE



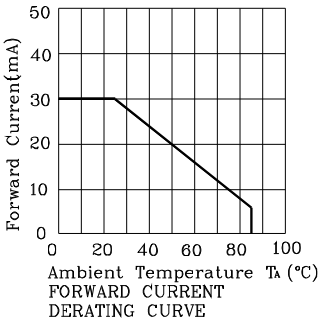
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



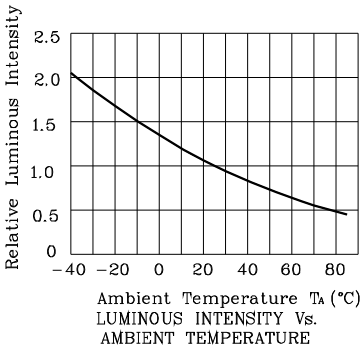
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

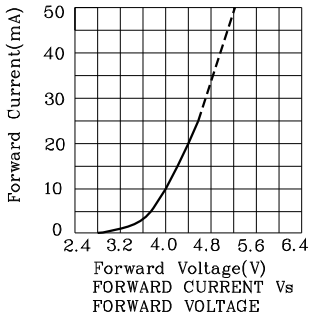


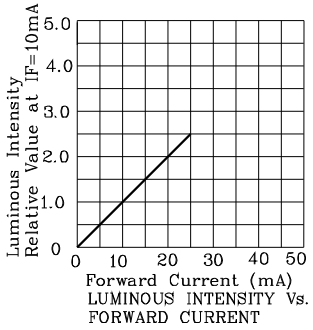
FORWARD CURRENT
DERATING CURVE

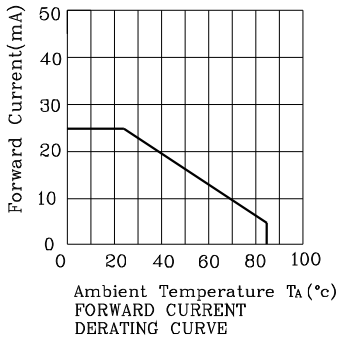


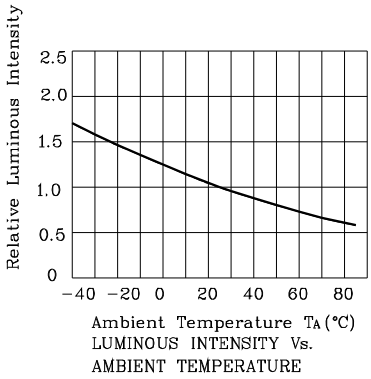
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

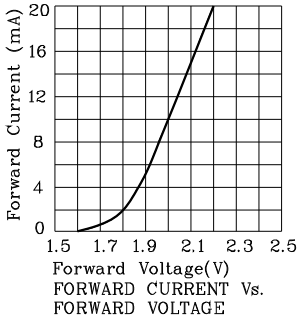
❖ **UG**


Forward Current(mA)
50
40
30
20
10
0
2.4 3.2 4.0 4.8 5.6 6.4
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE

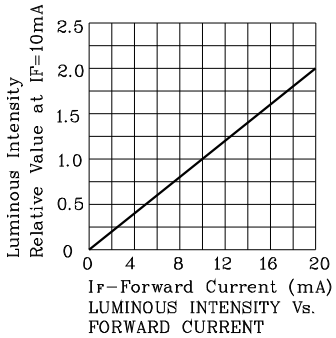

Luminous Intensity
Relative Value at IF=10mA
5.0
4.0
3.0
2.0
1.0
0
0 10 20 30 40 50
Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT


Forward Current(mA)
50
40
30
20
10
0
0 20 40 60 80 100
Ambient Temperature TA (°c)
FORWARD CURRENT
DERATING CURVE

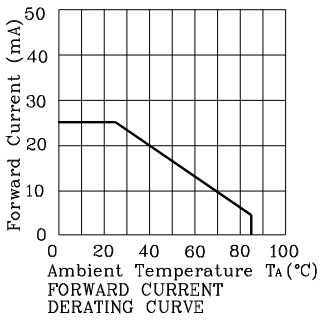

Relative Luminous Intensity
2.5
2.0
1.5
1.0
0.5
0
−40 −20 0 20 40 60 80
Ambient Temperature TA (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



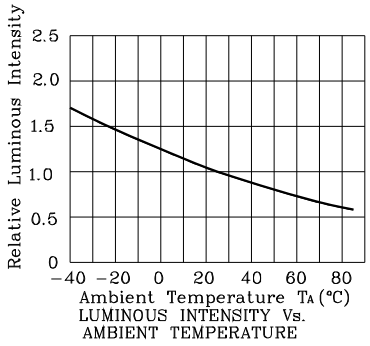
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

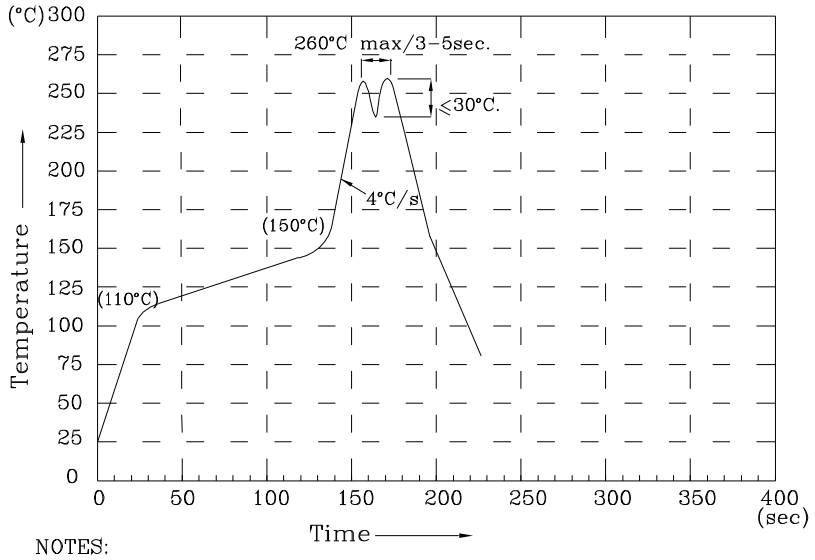


FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

1.Recommend the wave temperature 245°C~260°C.The maximum soldering temperature should be less than 260°C.
2.Do not apply stress on epoxy resins when temperature is over 85 degree°C.
3.The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4.No more than once.

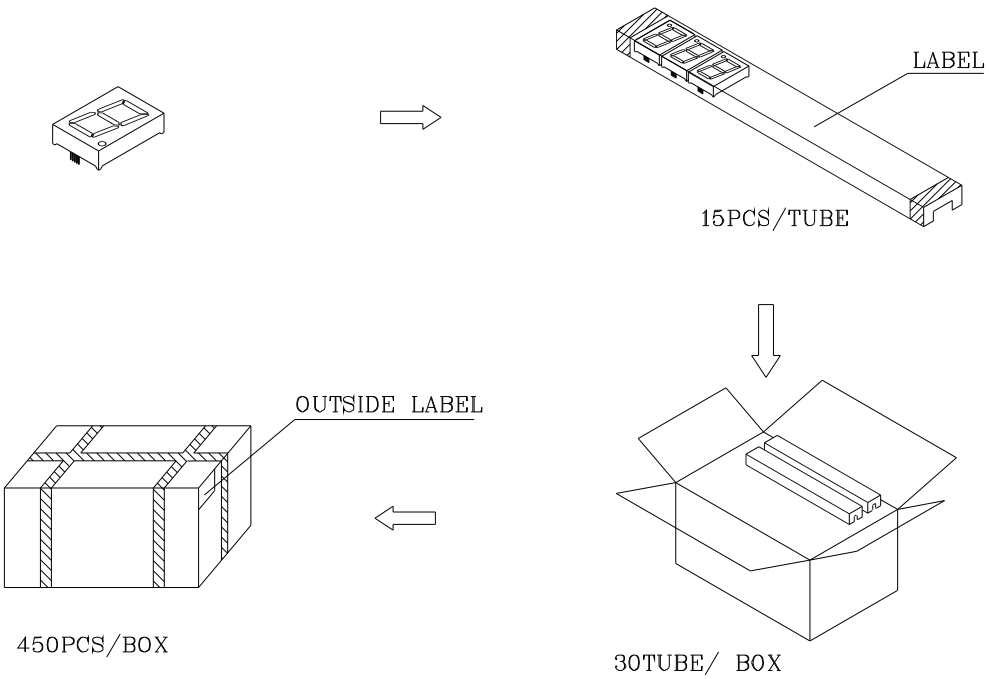
Remarks:

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

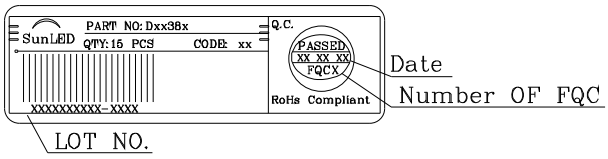
1. Wavelength: +/-1nm
2. Luminous intensity / luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS DURG38A



Inside LABEL Paste On The IC-tube



Outside LABEL Paste On The Box