Inolux Technologies 1.0” Single Digit Numeric Display
HNTS100 Series

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- Also, please keep in mind the precautions listed in this document.

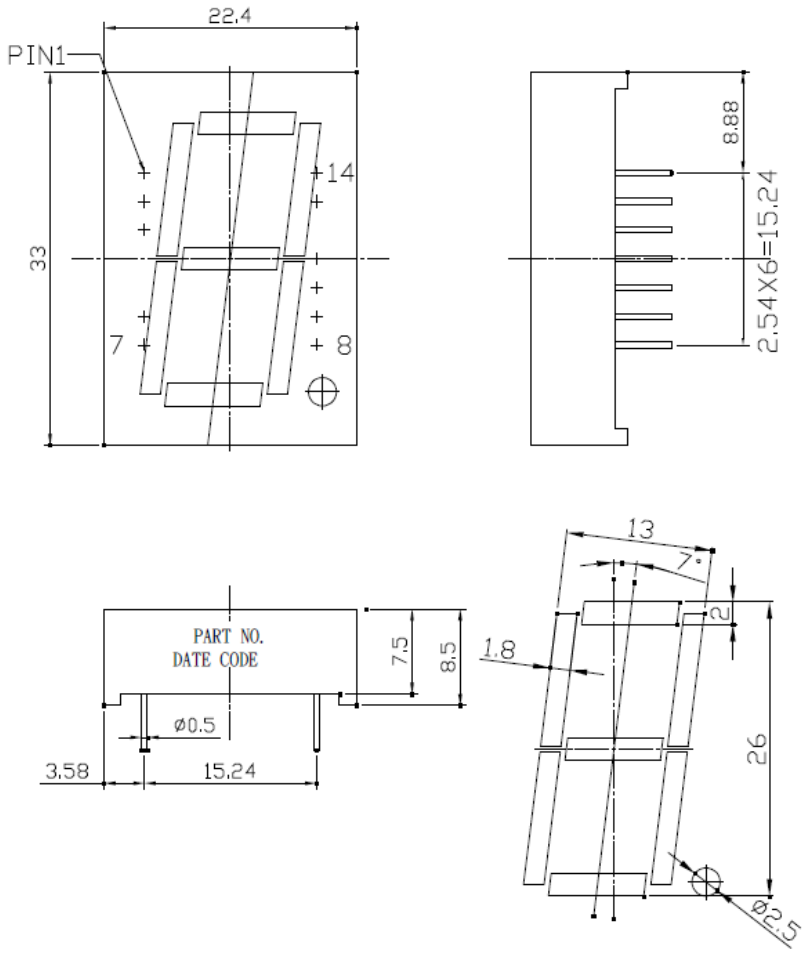
Orderable Information

H N T S 100 X X X - X X X X

Series Name	Digit Height	Color Code	Polarity	Customer Code
HNTS H: Inolux Technologies N: Numeric T: Through Hole S: Single	**100:** 1.0” digit height	**UB:** 470nm InGaN Blue **UTG:** 525nm InGaN True Green **UYG:** 570nm AllnGaP Yellow Green **UY:** 590nm AllnGaP Yellow **UA:** 606nm AllnGaP Amber **UR:** 625nm AllnGaP Hyper Red **USR:** 639nm AllnGaP Super Red	**CA:** Common Anode **CC:** Common Cathode	**XXXX:** Customer specific code

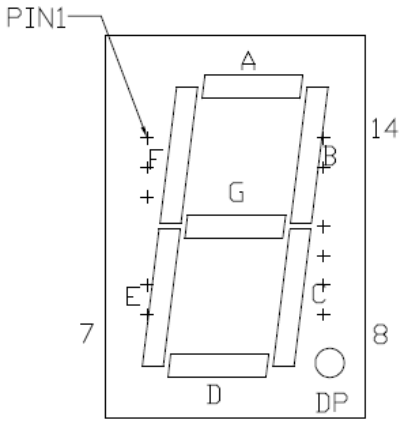
Features

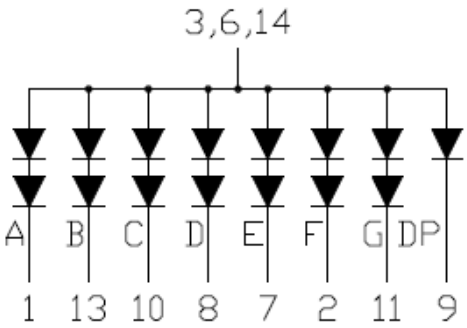
- 1.0” (26mm) Digit Height
- Through Hole Display
- Black Face , White Segment
- RoHS Compliant, Pb Free



Note: Dimension is in millimeters. Tolerance is ±0.25mm unless otherwise noted.

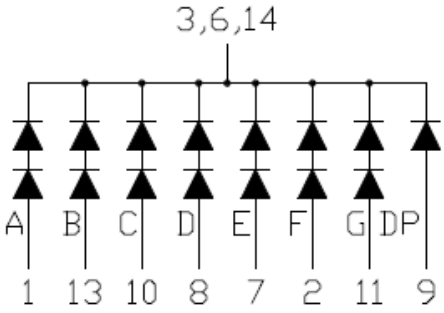
Schematic Drawing





No Pin on 4, 5, 12

Common Anode



No Pin on 4, 5, 12

Common Cathode

Product Characteristic

Absolute Maximum Rating

(T_a= 25°C)

Product	Emission Color	P_{AD} (mW)	I_{AF} (mA)	I_{PF} (mA)	V_R (V)	T_{OP}(°C)	T_{ST}(°C)	Derate From 25°C (mA/°C)
HNTS100UBCA/ HNTS100UBCC	Blue	120	30	100	5	-25 ~ +85	-25 ~ +85	0.4
HNTS100UTGA/ HNTS100UTGC	True Green	120	30	100	5	-25 ~ +85	-25 ~ +85	0.3
HNTS100UYGA/ HNTS100UYGC	Yellow Green	85	30	120	5	-25 ~ +85	-25~ +85	0.42
HNTS100UYA/ HNTS100UYC	Yellow	70	25	90	5	-25 ~ +85	-25 ~ +85	0.28
HNTS100UAA/ HNTS100UAC	Amber	70	25	90	5	-25 ~ +85	+25 ~ +85	0.33
HNTS100URA/ HNTS100URC	Hyper Red	70	25	90	5	-25 ~ +85	-25 ~ +85	0.33
HNTS100USRA/ HNTS100USRC	Super Red	70	25	90	5	-25 ~ +85	-25 ~ +85	0.33

Electrical and Optical Characteristic

(T_a= 25°C)

Product	Emission Color	I_F (mA)	V_F (V)		λ (nm)		I_V (mcd)	I_R (μA)	
			Typ.	Max.	λd	Δλ	Typ.	Max	
HNTS100UBCA/ HNTS100UBCC	Blue	20	3.2	4.0	470	30	100	10	(V_R=8V)
			6.4	8.0					(V_R=16V)
HNTS100UTGA/ HNTS100UTGC	True Green	20	3.2	4.0	525	30	220	10	(V_R=8V)
			6.4	8.0					(V_R=16V)
HNTS100UYGA/ HNTS100UYGC	Yellow Green	20	2.1	2.6	571	20	35	10	(V_R=5V)
			4.2	5.2					(V_R=10V)
HNTS100UYA/ HNTS100UYC	Yellow	20	2.0	2.6	590	20	70	10	(V_R=5V)
			4.0	5.2					(V_R=10V)
HNTS100UAA/ HNTS100UAC	Amber	20	2.0	2.6	606	35	70	10	(V_R=5V)
			4.0	5.2					(V_R=10V)
HNTS100URA/ HNTS100URC	Hyper Red	20	2.0	2.6	625	20	70	10	(V_R=5V)
			4.0	5.2					(V_R=10V)
HNTS100USRA/ HNTS100USRC	Super Red	20	2.0	2.6	639	20	50	10	(V_R=5V)
			4.0	5.2					(V_R=10V)

Luminous Intensity tolerance = +/- 15%

Characteristic Curves for UB

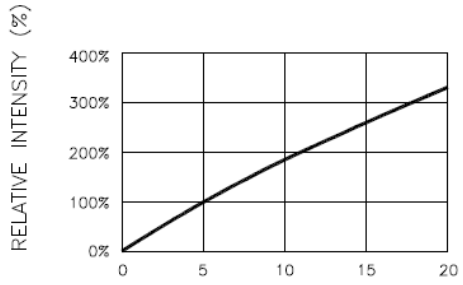


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

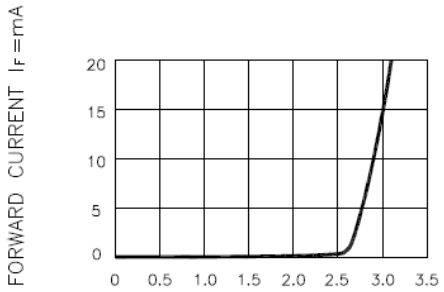


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

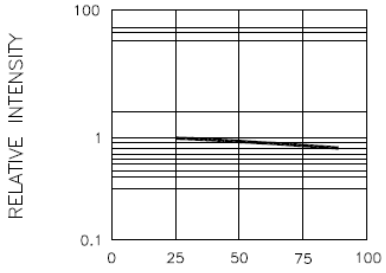


Fig.3 RELATIVE INTENSITY VS.LEAD TEMPERATURE
(PULSED 20 mA; 300us PULSE,10ms PERIOD)

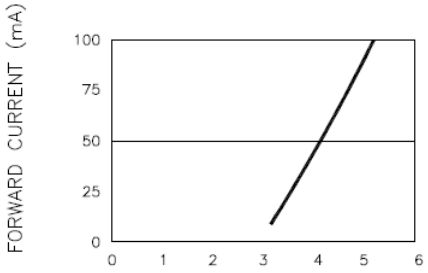


Fig.4 PEAK FORWARD VOLTAGE VS.FORWARD
(100us TEST PULSE, 1% DUTY CYCLE)

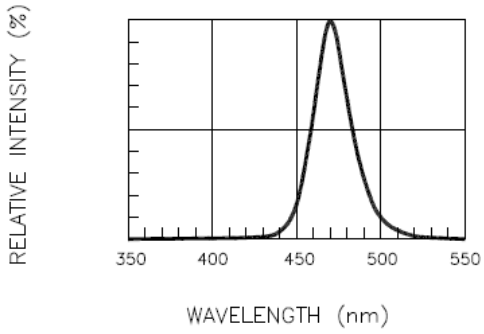


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

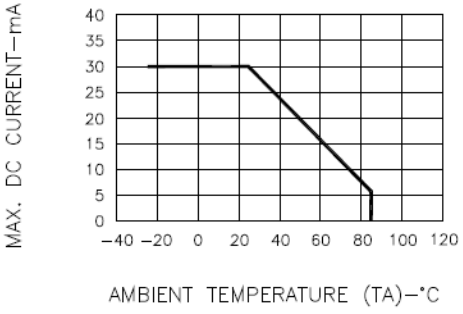


Fig.6 MAX. ALLOWABLE DC CURRENT
VS. AMBIENT TEMPERATURE

Characteristic Curves for UTG

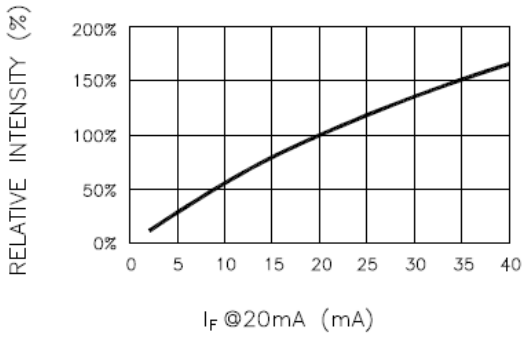


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

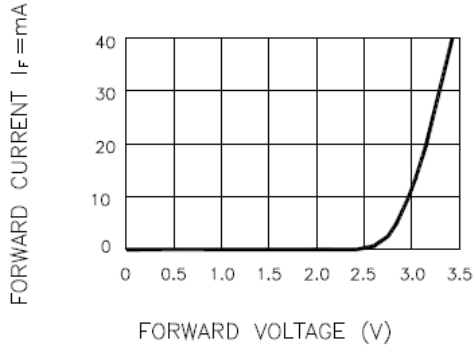


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

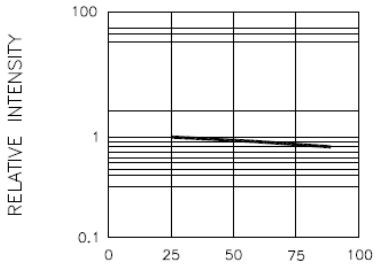


Fig.3 RELATIVE INTENSITY VS.LEAD TEMPERATURE
(PULSED 20 mA; 300us PULSE,10ms PERIOD)

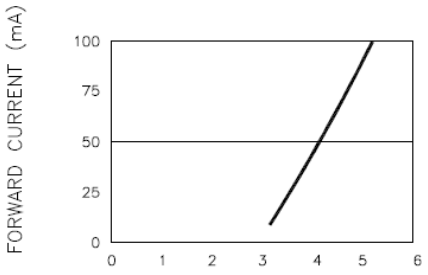


Fig.4 PEAK FORWARD VOLTAGE VS.FORWARD
(100us TEST PULSE, 1% DUTY CYCLE)

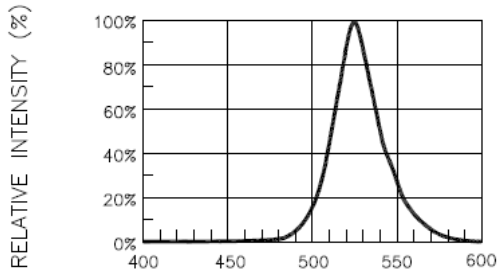


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

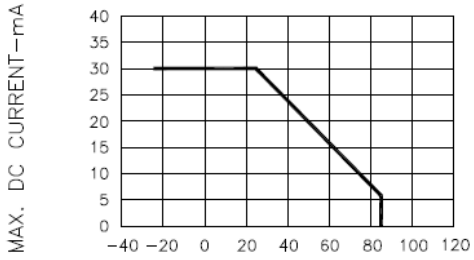


Fig.6 MAX. ALLOWABLE DC CURRENT
VS. AMBIENT TEMPERATURE

Characteristic Curves for UYG

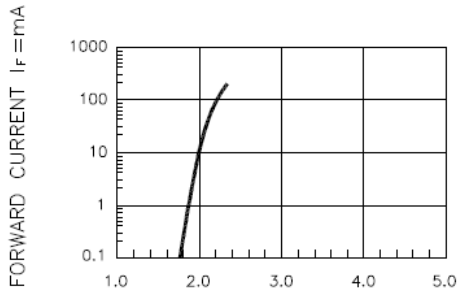


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

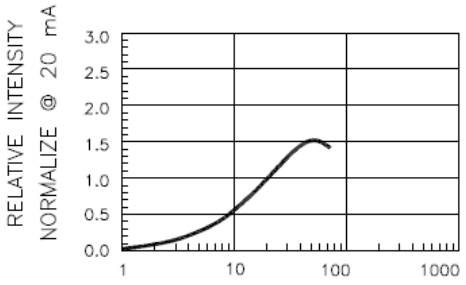


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

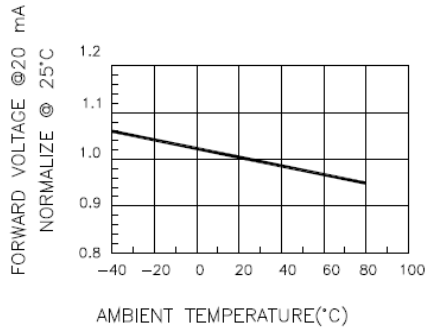


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

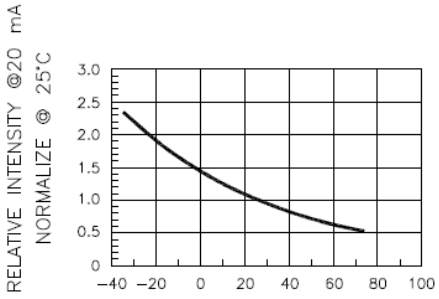


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

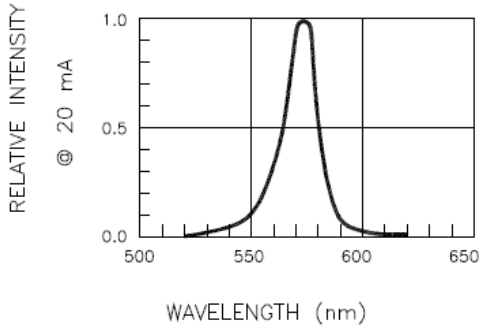


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

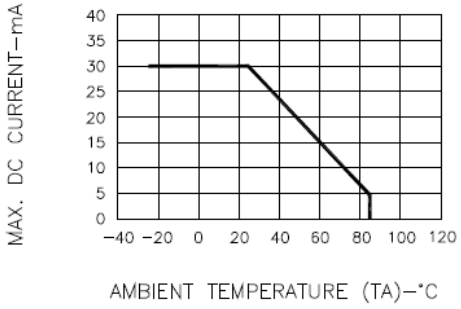


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

Characteristic Curves for UY

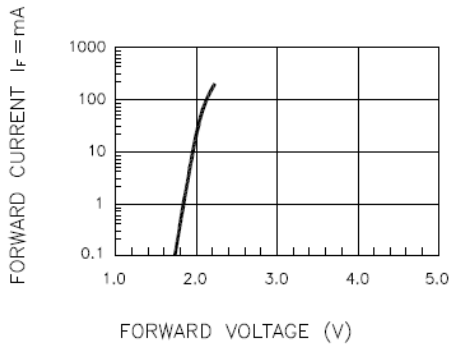


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

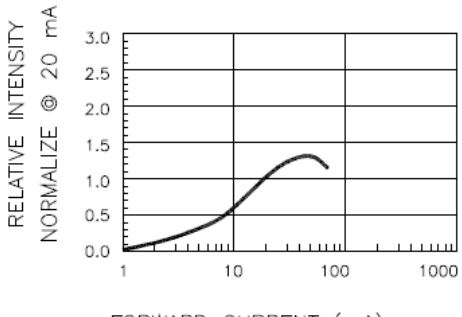


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

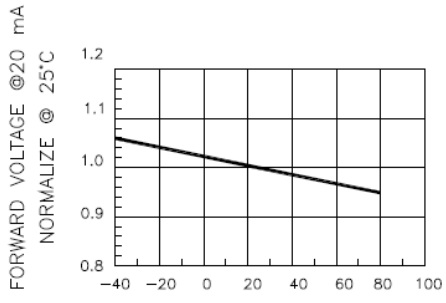


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

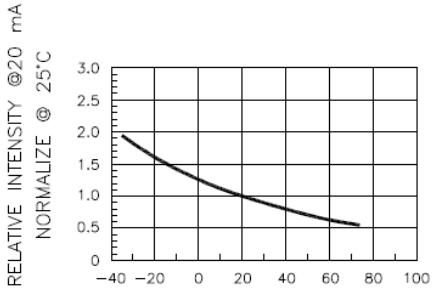


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

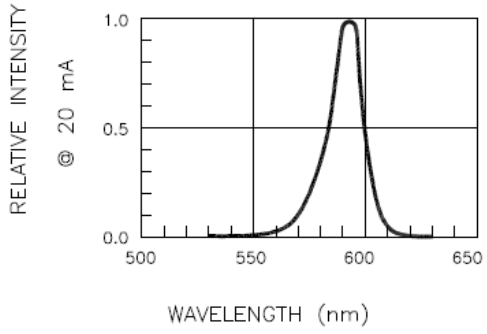


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

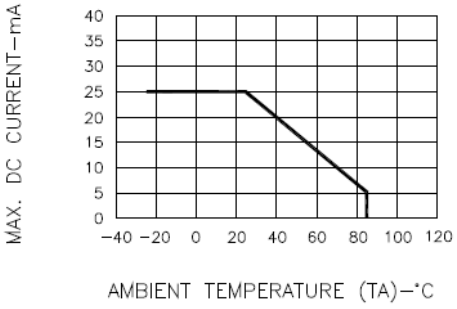


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

Characteristic Curves for UA

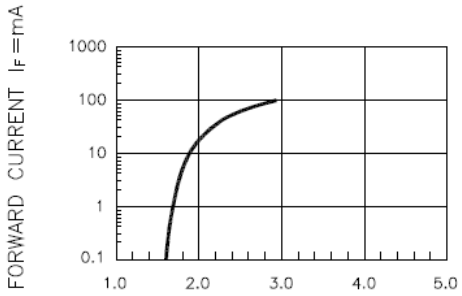


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

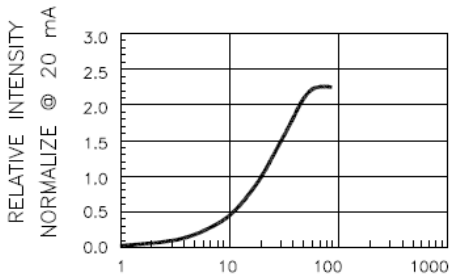


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

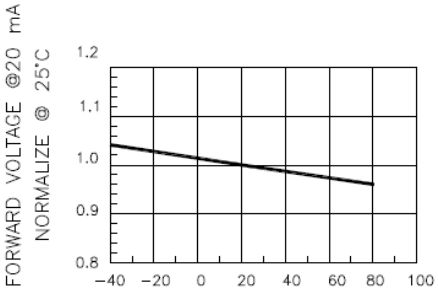


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

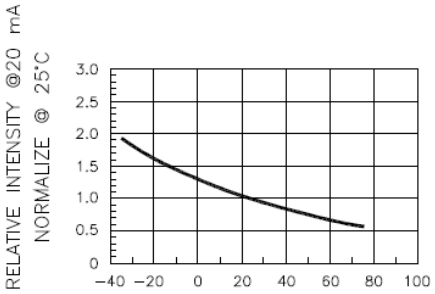


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

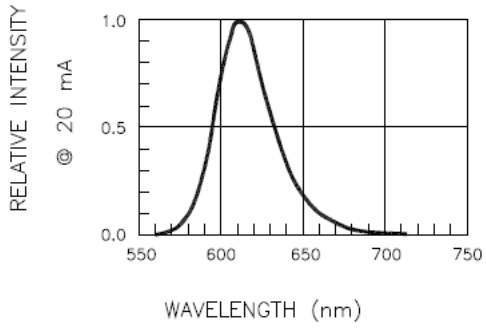


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

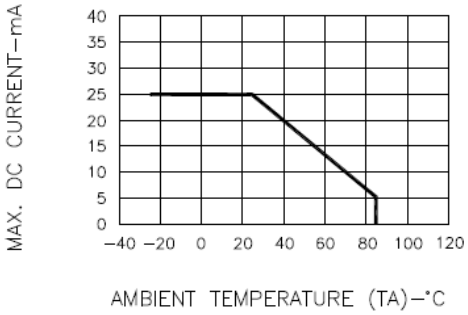


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

Characteristic Curves for UR

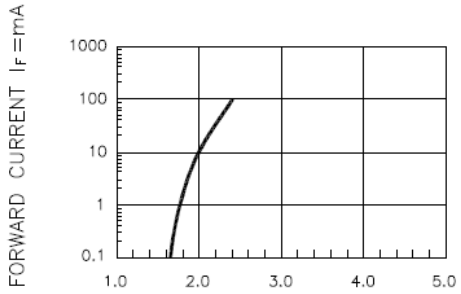


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

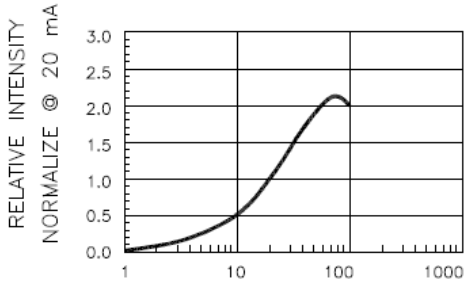


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

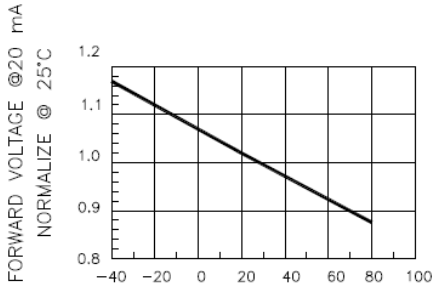


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

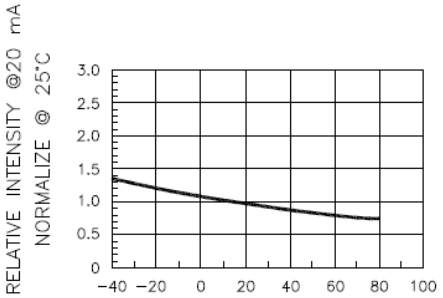


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

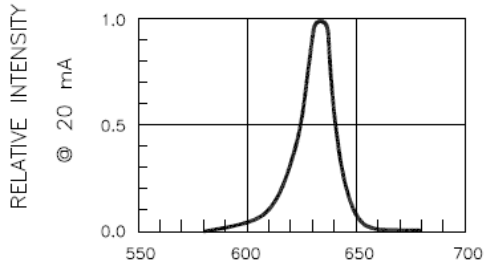


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

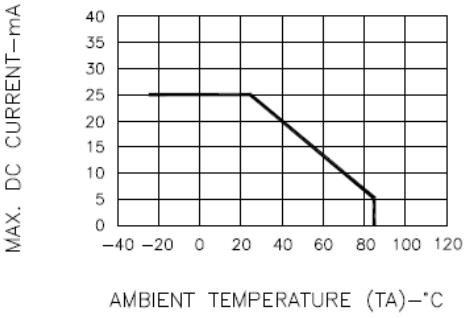


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

Characteristic Curves for USR

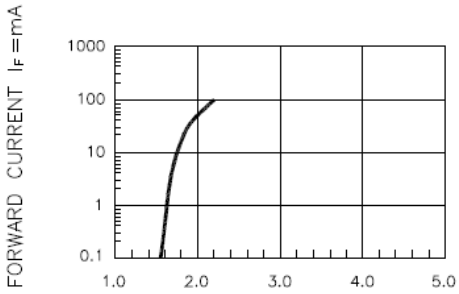


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

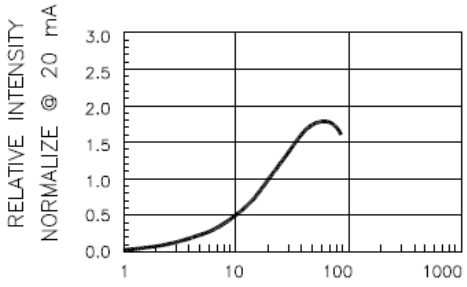


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

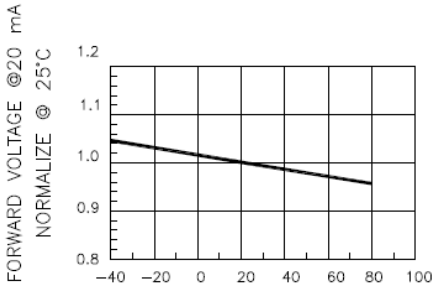


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

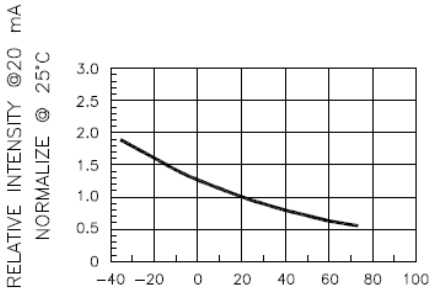


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

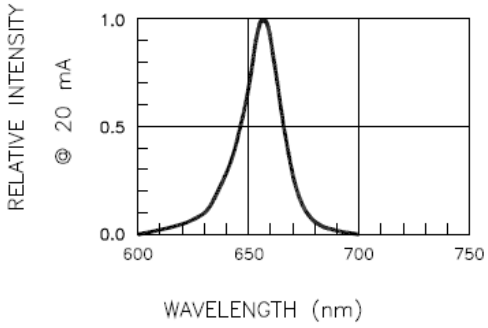


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

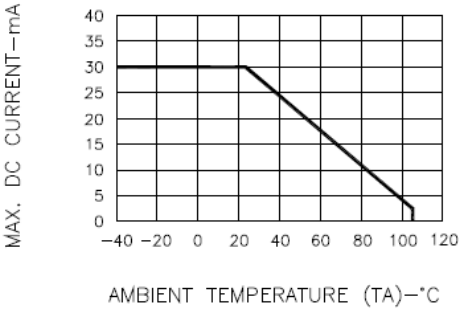
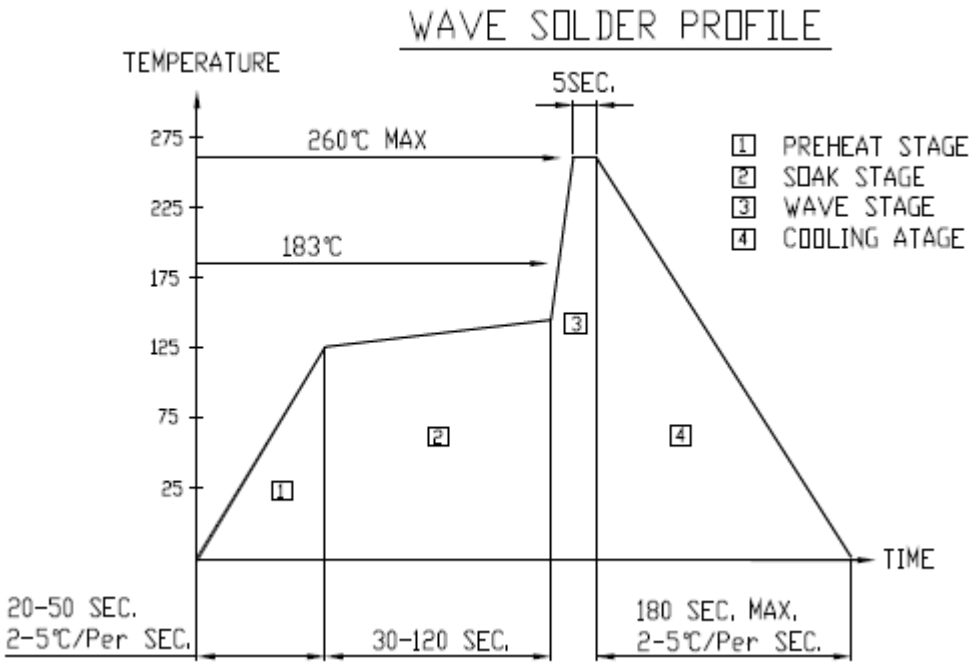


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

Reflow Soldering



Soldering Iron

Basic Spec is ≦ 4 sec. when 260°C (+10°C ➔ -1 second). Power dissipation of Iron should be less than 15W. Surface temperature should be under 236°C

Rework

Rework should be completed within 4 second under 245°C

Revision History

Changes since last revision	Page	Version No.	Revision Date
Initial Release for HNTS100 Series		1.0	05-02-2013