

0805<2.0×1.25 t=0.8mm> High Brightness Type

SML-212 Series

Emitting Color	Yellow		Orange		Red	
Material	AlGaInP on GaAs					
Package Size(mm)						
Part No.	SML-212YT	SML-212WT(A)	SML-212DT	SML-212U2T(A)	SML-212VT	

Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation Pd (mW)	Forward current IF (mA)	Peak forward current I _{FP} (mA)	Reverse voltage VR (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
SML-212YT	Yellow			60 *1	4	-30 to +85	-40 to +85
SML-212WT(A)				100 *2	5	-40 to +100	-40 to +100
SML-212DT	Orange	75	30	60 *1	4	-30 to +85	-40 to +85
SML-212VT	Red						
SML-212U2T(A)							

*1:Duty ≤ 1/5, pulse width ≤ 1ms.

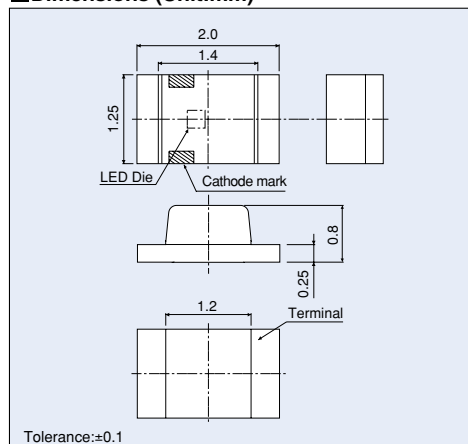
*2:Duty ≤ 1/10, 1kHz

Electrical Optical Characteristics (Ta=25°C)

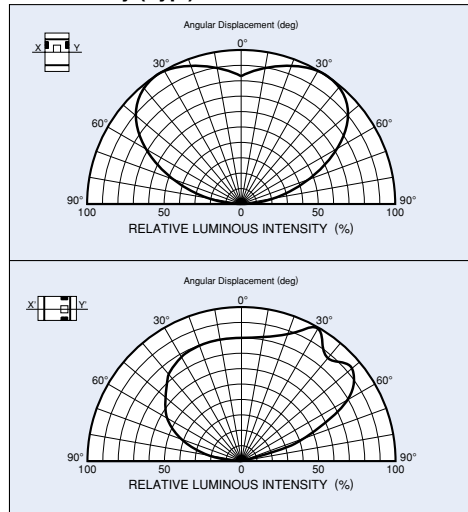
Part No.	Resin Color	Forward voltage VF		Reverse current IR		Light wavelength			Brightness Iv		
		Typ. (V)	IF* (mA)	Max. (μA)	VR (V)	Peak λp (nm)	Half-wave Δλ (nm)	IF* (mA)	Min. (mcd)	Typ. (mcd)	IF* (mA)
SML-212YT	Transparent Colorless	2.05	20	100	4	591	15	20	22	63	20
SML-212WT(A)		2.0		10	5	590	15		112	224	
SML-212DT		2.05		100	4	611	17		22	63	
SML-212VT						639	20				
SML-212U2T(A)		2.0		10	5	625	17		71	140	

* Pulse width : 30ms (SML-212WT(A)/SML-212U2T(A))

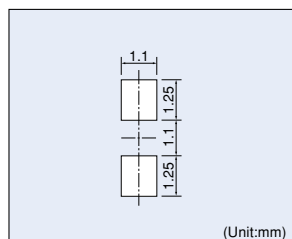
Dimensions (Unit:mm)



Directivity (Typ.)

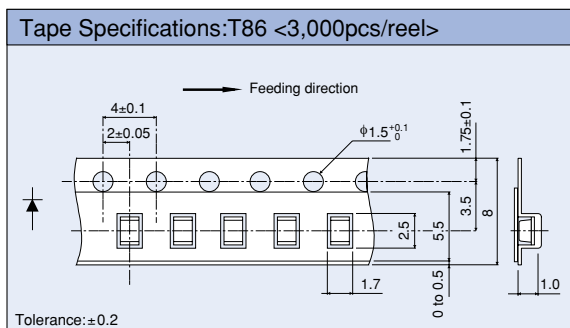


Recommended Pad Layout

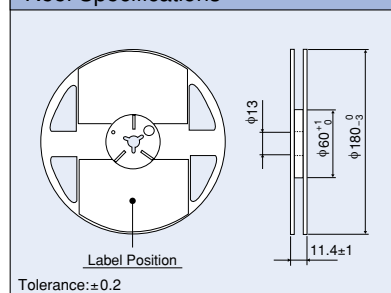


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

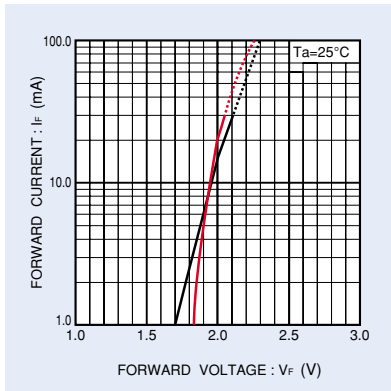


Reel Specifications



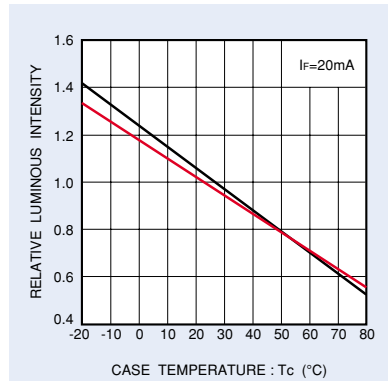
Electrical Characteristic Curves

Forward Current - Forward Voltage



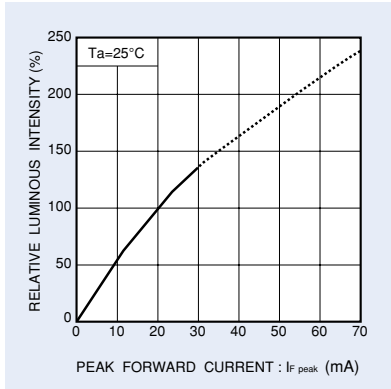
— SML-212YT
 SML-212DT
 SML-212VT
 — SML-212WT(A)
 SML-212U2T(A)

Relative Luminous Intensity - Case Temperature



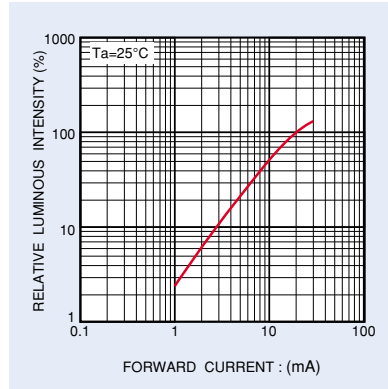
— SML-212YT
 SML-212DT
 SML-212VT
 — SML-212WT(A)
 SML-212U2T(A)

Relative Luminous Intensity - Forward Current



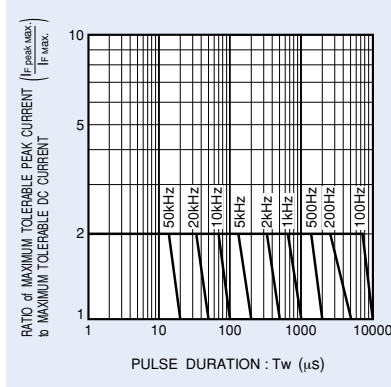
— SML-212YT
 SML-212DT
 SML-212VT
 — SML-212WT(A)
 SML-212U2T(A)

Ratio of Maximum Tolerable Peak Current - Pulse Duration



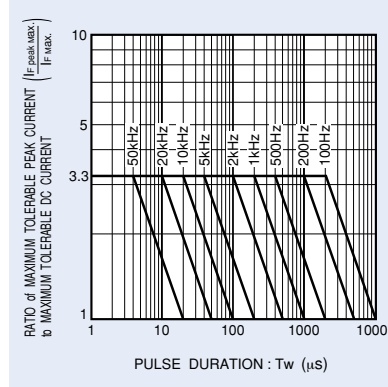
— SML-212YT
 SML-212DT
 SML-212VT
 — SML-212WT(A)
 SML-212U2T(A)

Ratio of Maximum Tolerable Peak Current - Pulse Duration



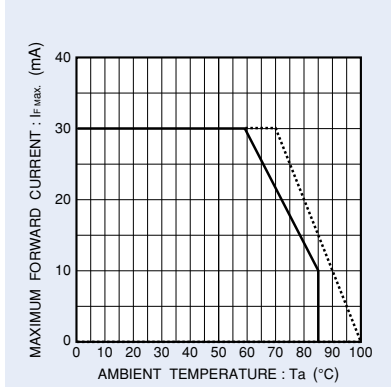
— SML-212YT
 SML-212DT
 SML-212VT
 — SML-212WT(A)
 SML-212U2T(A)

Ratio of Maximum Tolerable Peak Current - Pulse Duration



— SML-212YT
 SML-212DT
 SML-212VT
 — SML-212WT(A)
 SML-212U2T(A)

Derating



— SML-212YT
 SML-212DT
 SML-212VT
 SML-212WT(A)
 SML-212U2T(A)

Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.