High Brightness Type Side view chip LEDs

SML-A12 Series

Package Size (mm)	Green	Yellow	Orange	Red	
		AlGaInP			
	570nm	590nm	611nm	630nm	
1611 (0605) 1.6×1.15 t=0.55					
	SML-A12MT	SML-A12WT	SML-A12DT	SML-A12UT	

■ Absolute Maximum Ratings (Ta=25°C)

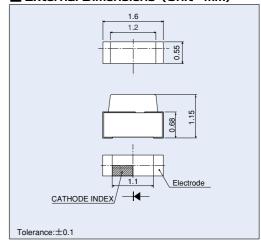
Part No.	Emitting color	Power dissipation Po (mW)	Forward current IF (mA)	Peak forward current * IFP (mA)	Reverse voltage V _R (V)	Operating temperature Topr	Stotage temperature T _{stg} (°C)
SML-A12MT	Green	65	25			-30 to +85	-40 to +85
SML-A12WT	Yellow			100	5		
SML-A12DT	Orange	75	30	100	5	-40 to +85	-40 to +100
SML-A12UT	Red						

^{*} IFP measured under duty ≤1/5,pulse width ≤1ms.

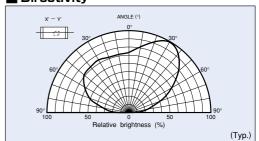
■ Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V _F		Reverse current In		Light wavelength Peak Half-wave			Brightness Iv		
		Typ.	lF (mA)	Max. (μA)	VR (V)	Typ. (nm)	Typ. (nm)	lF (mA)	Min. (mcd)	Typ. (mcd)	lF (mA)
SML-A12MT		2.1		100		570	18		14	40	
SML-A12WT	Transparent		20		_	590	15	20		63	20
SML-A12DT	Clear	2.0	20	10	5	611	16	20	36	100	20
SML-A12UT						630	18			100	

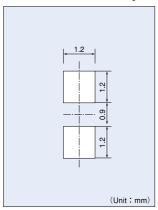
■ External Dimensions (Unit: mm)



Directivity

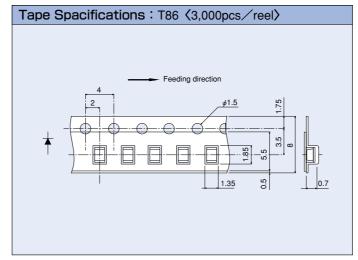


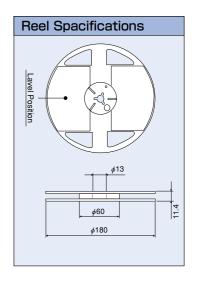
■ Recommemded Pad Layout



The recommended thickness of the screen mask for soldering is more than $150\,\mu m$. The hole size of the screen mask should be same as the recommended land pattern or smaller.

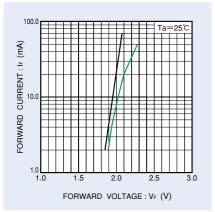
■ Packaging Spacifications (Unit:mm)





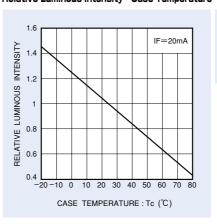
■ Electrical Characteristic Curves

Forward Current - Forward Voltage



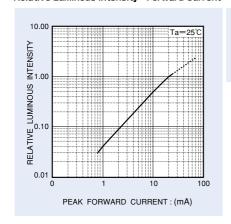
— SML-A12MT — SML-A12WT SML-A12DT SML-A12UT

Relative Luminous Intensity - Case Temperature



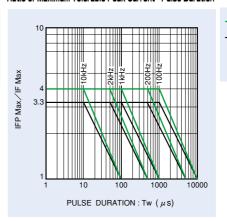
SML-A12MT
SML-A12WT
SML-A12DT
SML-A12UT

Relative Luminous Intensity - Forward Current



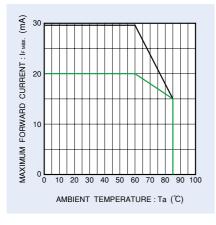
SML-A12MT
SML-A12WT
SML-A12DT
SML-A12UT

Ratio of Maximum Tolerable Peak Current - Pulse Duration



SML-A12MT
SML-A12WT
SML-A12DT
SML-A12UT

Derating



SML-A12MTSML-A12WTSML-A12DTSML-A12UT

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 with 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.

