



High Brightness Type Mini-molded chip LEDs

SML-51 * Series

Package Size (mm)	Green	Yellow		Orange		Red	
	AlGaInP on GaAs						
	570nm	590nm		611nm		630nm	
1608 (0603) 1.6×0.8 t=0.55							
	SML-512MW	SML-511WW	SML-512WW	SML-511DW	SML-512DW	SML-511UW	SML-512UW

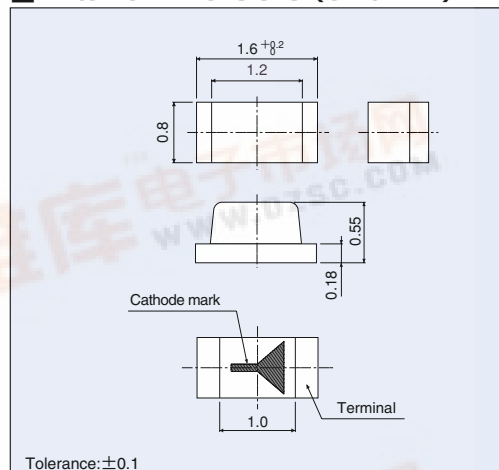
Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation Pd (mW)	Forward current IF (mA)	Peak forward current IFP (mA)	Reverse voltage VR (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
SML-512MW	Green	65	25	100*2	5	-30 to +85	-40 to +85
SML-511WW	Yellow	62		60*1	4	-30 to +85	-40 to +85
SML-512WW		75	30	100*2	5	-40 to +100	-40 to +100
SML-511DW	Orange	62	25	60*1	4	-30 to +85	-40 to +85
SML-512DW		75	30	100*2	5	-40 to +100	-40 to +100
SML-511UW	Red	62	25	60*1	4	-30 to +85	-40 to +85
SML-512UW		75	30	100*2	5	-40 to +100	-40 to +100

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

*2 IFP measured under duty 1/10, 1kHz

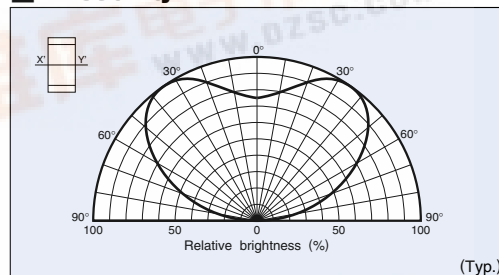
External Dimensions (Unit : mm)



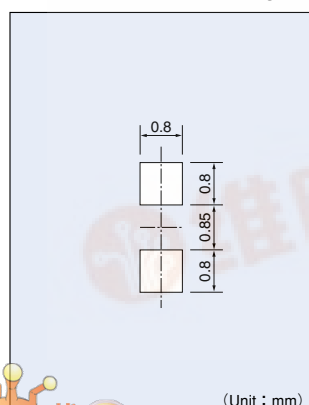
Electrical Optical Characteristics (Ta=25°C)

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-512MW	Milky White	2.1	20	100	5	570	18	20	14	40	20
SML-511WW				100	4	590	15		22	63	
SML-512WW				10	5				36	63	
SML-511DW		2.0		100	4	611	16		14	40	
SML-512DW				10	5				22	63	
SML-511UW				100	4	630	18		14	40	
SML-512UW				10	5				22	63	

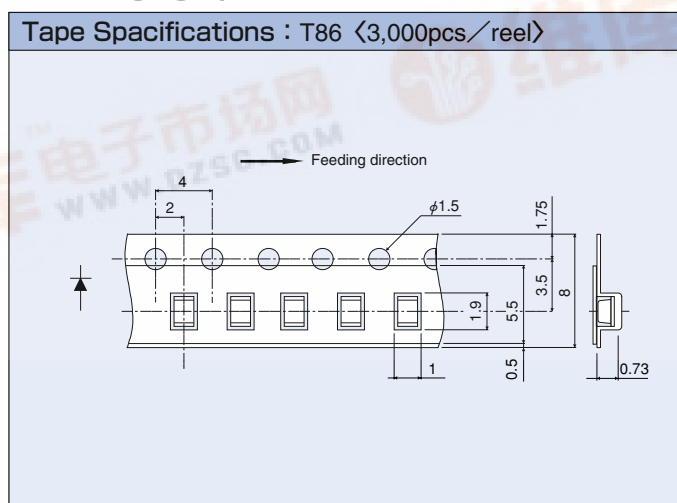
Directivity



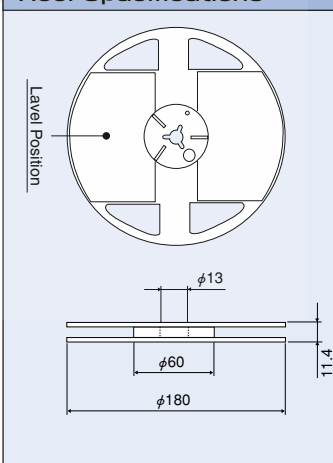
Recommended Pad Layout



Packaging Specifications (Unit : mm)

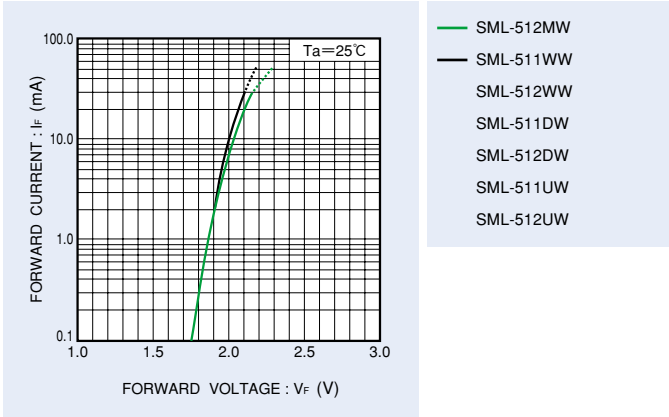


Reel Specifications

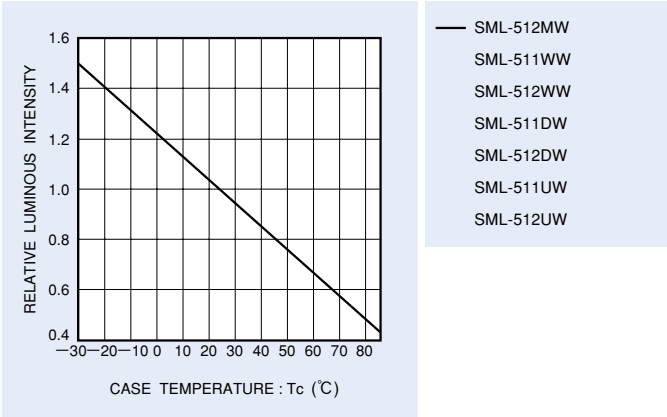


Electrical Characteristic Curves

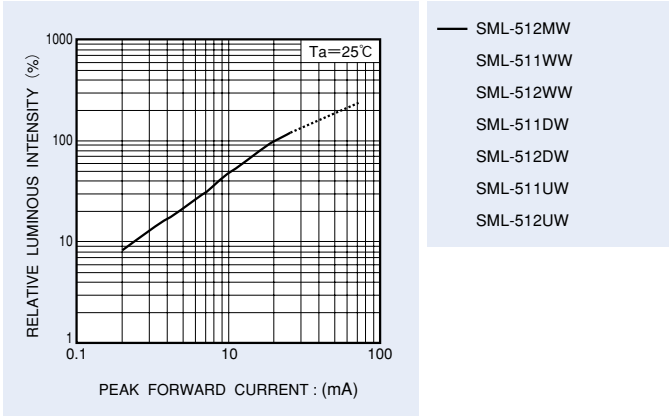
Forward Current - Forward Voltage



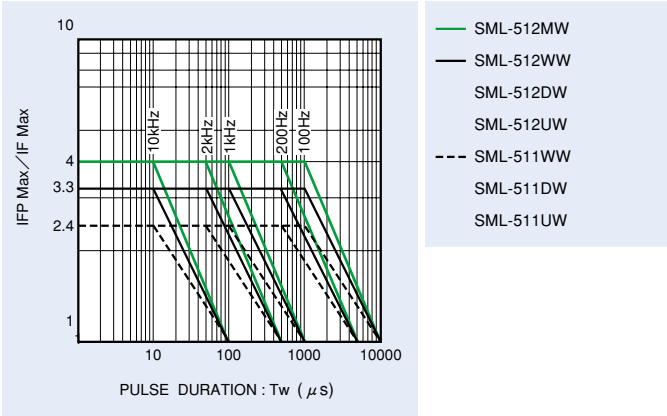
Relative Luminous Intensity - Case Temperature



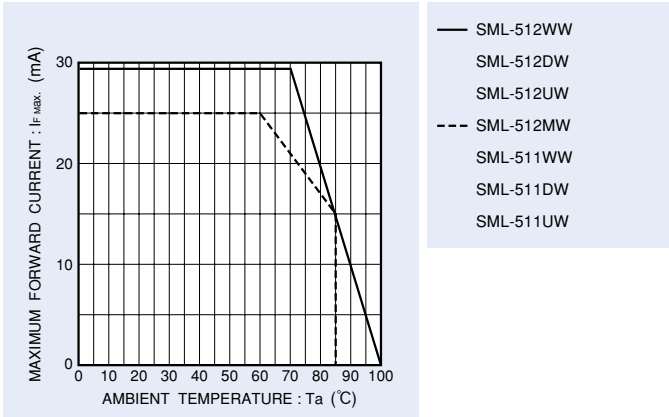
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



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