

SML06Y4C-TR

Yellow

Surface Mount LED

2.0 × 1.25 × 0.8mm Chip LED

154° viewing angle

DWG BY:
OCC / GP
02-27-12

CHK BY:
PL
02-28-12

QA:
RD
02-28-12

REVISION LTR: A
ECR#: 022212-RTD01
02-27-12



Features

Package	2521(h=0.8mm) Type, Milky White resin
Product features	<ul style="list-style-type: none"> • Outer Dimension 3.0 x 1.5 x 1.5mm (L x W x H) • Lead-free soldering compatible • RoHS compliant
Die material	: GaAsP
Rank grouping parameter	Sorted by luminous intensity per rank taping
Assembly method	Auto pick & place machine (Auto Mounter)
Soldering methods	Reflow soldering and manual soldering
Taping and reel	4,000pcs per reel in a 8mm width tape. (Standard) Reel diameter: ϕ 180mm
ESD	More than 2kV(HBM)

Absolute Maximum Ratings

(Ta=25°C)

Item	Symbol	Absolute Maximum Ratings	Unit
Power Dissipation	P_d	70	mW
Forward Current	I_F	25	mA
Pulse Forward Current *1	I_{FRM}	60	mA
Derating (Ta=25°C or higher)	ΔI_F	0.36	mA/°C
	ΔI_{FRM}	0.86	mA/°C
Reverse Voltage	V_R	4	V
Operating Temperature	T_{opr}	-40~+85	°C
Storage Temperature	T_{stg}	-40~+100	°C

*1 I_{FRM} Measurement condition : Pulse Width ≤ 1 ms., Duty $\leq 1/20$.

Electro-Optical Characteristics

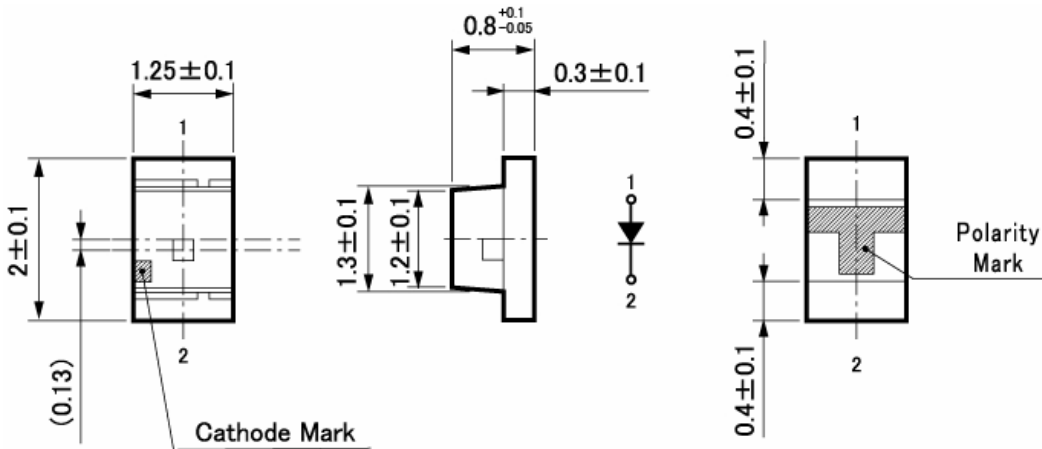
(Ta=25°C)

Item	Conditions	Symbol	Characteristics		Unit
Luminous Intensity	$I_F=20$ mA	I_v	min.	2.2	mcd
			typ.	5.5	
Forward Voltage	$I_F=20$ mA	V_F	typ.	2.2	V
			max.	2.8	
Reverse Current	$V_R=4$ V	I_R	max.	100	μ A
Peak Wavelength	$I_F=20$ mA	λ_p	typ.	590	nm
Dominant Wavelength	$I_F=20$ mA	λ_d	typ.	589	nm
Spectral Line Half Width	$I_F=20$ mA	$\Delta\lambda$	typ.	37	nm
Half Intensity Angle	$I_F=20$ mA	2θ 1/2	typ.	155(θ x)	deg.
				153(θ y)	
Chromaticity Coordinates	$I_F=20$ mA	X	typ.	0.58	
		Y	typ.	0.42	

Package Dimensions

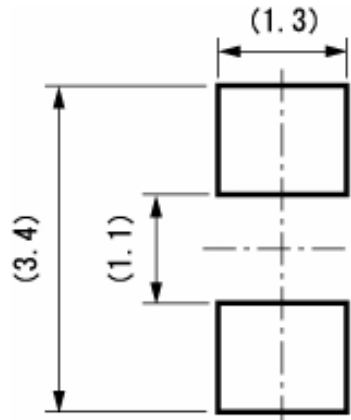
(Unit: mm)

Weight: (2.84)mg



Recommended Soldering Pattern

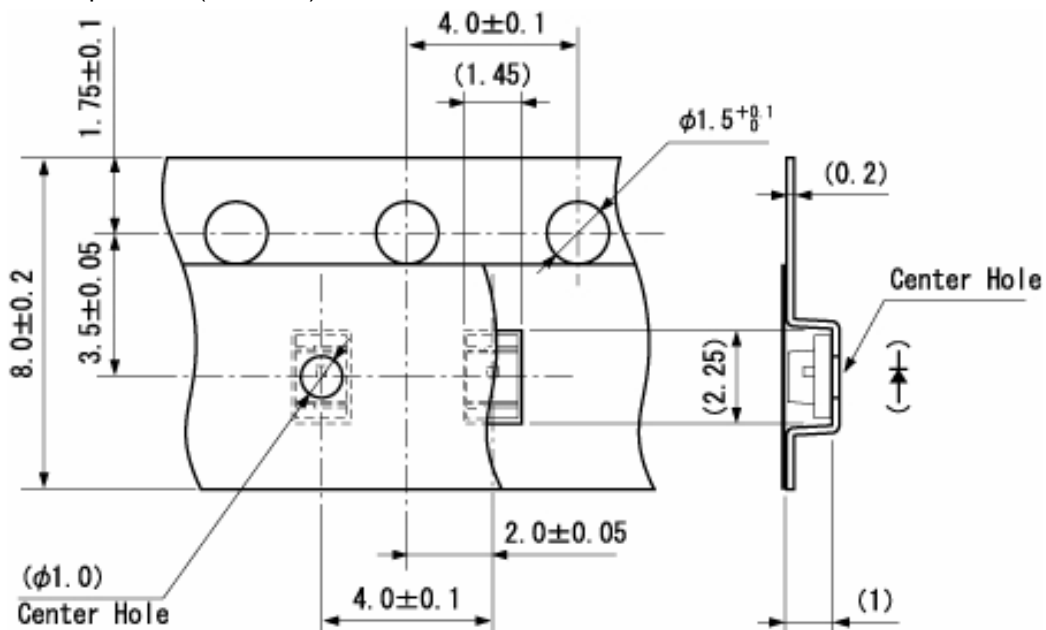
(Unit: mm)

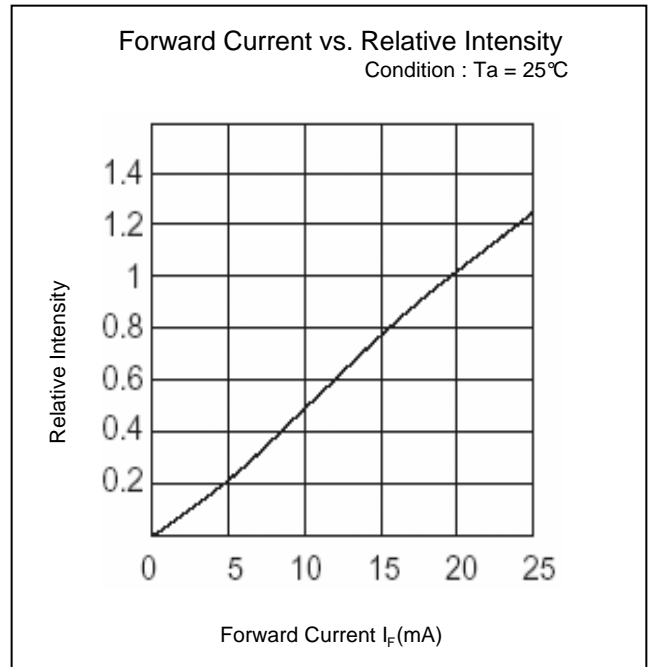
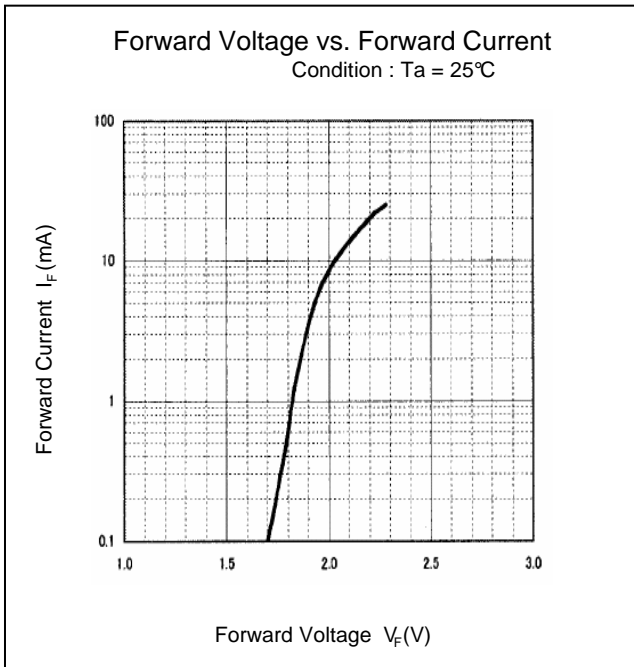
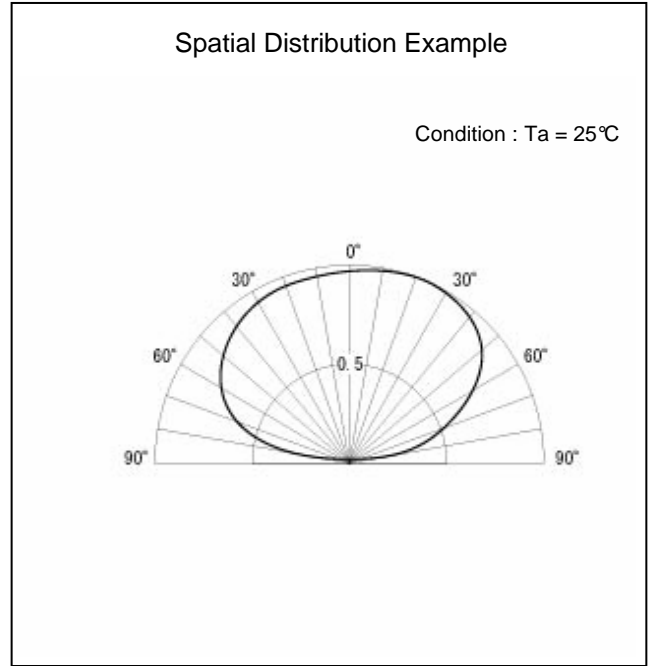
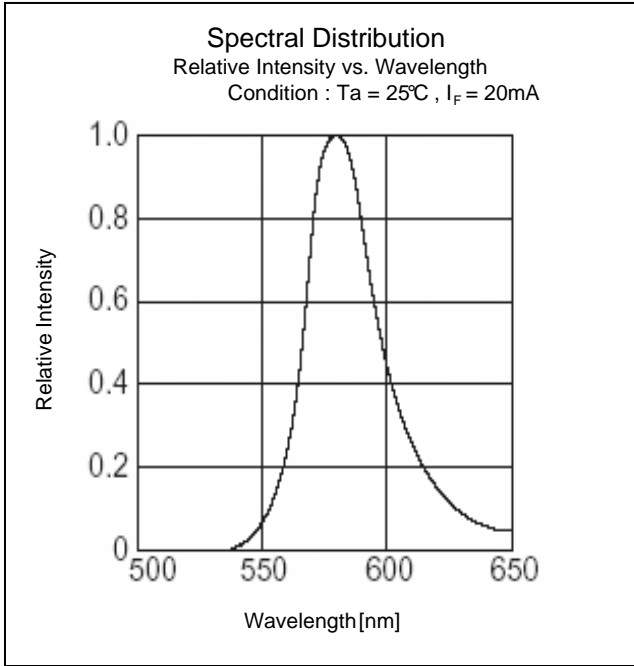


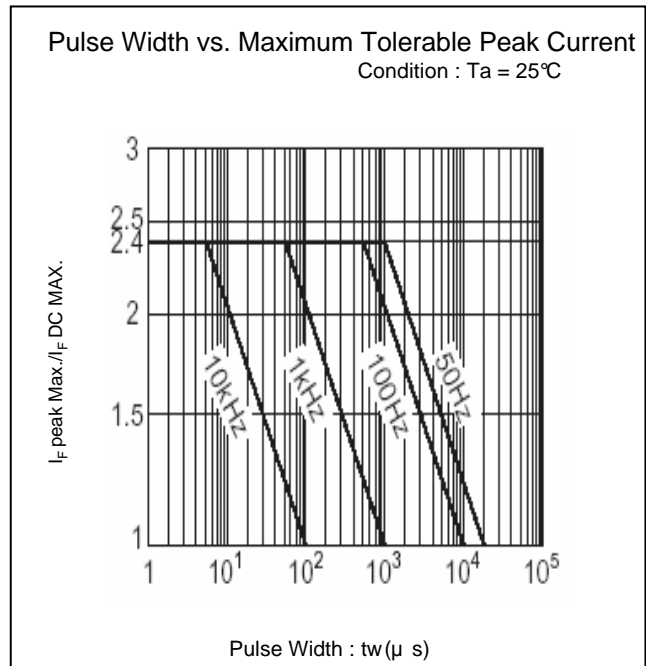
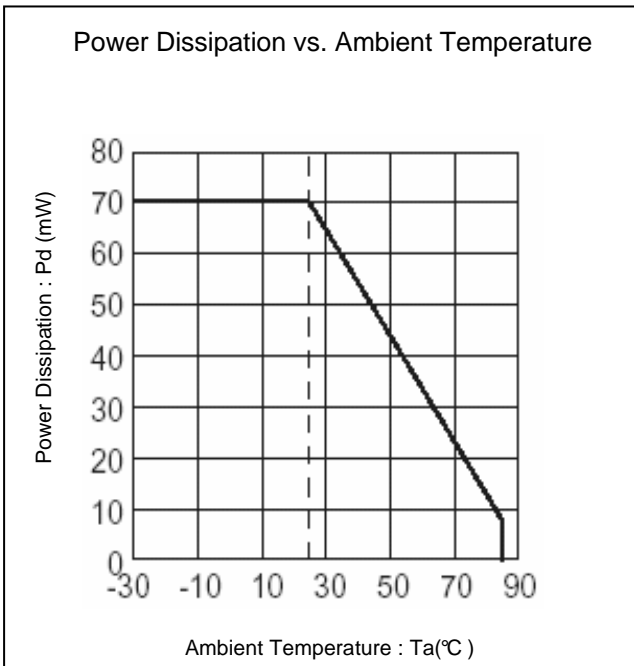
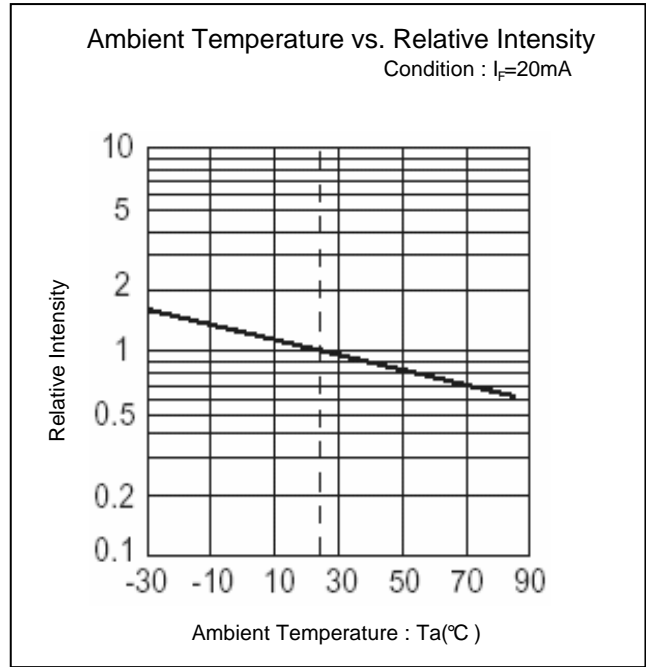
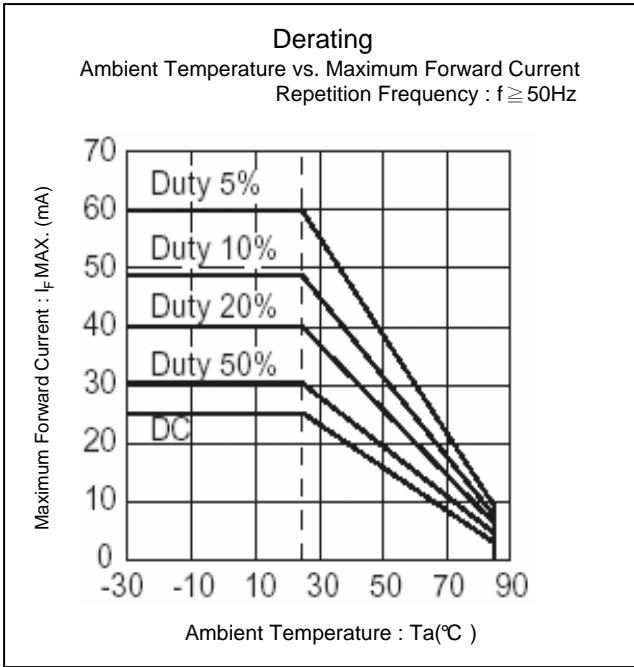
Taping Specification

(Unit: mm)

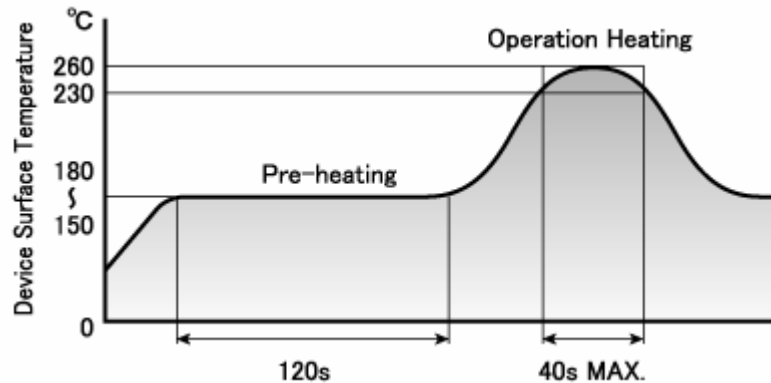
Quantity : 4,000pcs/ reel (standard)







Reflow Soldering Conditions



- 1) The above profile temperature gives the maximum temperature of the LED resin surface. Please set the temperature so as to avoid exceeding this range.
- 2) Total times of reflow soldering process shall be no more than 2 times. When the second reflow soldering process is performed, intervals between the first and second reflow should be short as possible (while allowing some time for the component to return to normal temperature after the first reflow) in order to prevent the LED from absorbing moisture.
- 3) Temperature fluctuation to the LED during the pre-heating process shall be minimized.

Manual Soldering Conditions

Iron tip temp.	350 °C	(MAX.)
Soldering time and frequency	3 s	(MAX.)
	1 time	(MAX.)