

PRELIMINARY

SMTW47

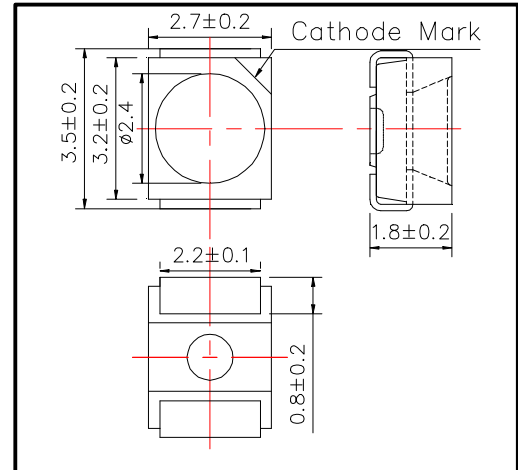
High Performance White color TOP LED

SMTW47 consists of an InGaN LED mounted with YAG on the lead frame as TOP LED package and emits white color radiation. and is 700mcd typical of Brightness.

Specifications

- 1) Product Name TOP LED
 - 2) Type No. SMTW47
 - 3) Chip
 - (1) Chip Material InGaN
 - (2) Peak Wavelength White color (*1) typ.
 - 4) Package
 - (1) Lead Frame Die Silver Plated
 - (2) Package Resin PPA Resin
 - (3) Lens Epoxy Resin
- (*1): x: $2.3 \pm 0.3E-01$, y: $2.2 \pm 0.3E-01$

Outer dimension (Unit: mm)



Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	120	mW	$T_a = 25^\circ\text{C}$
Forward Current	I_F	30	mA	$T_a = 25^\circ\text{C}$
Reverse Voltage	V_R	5	V	$T_a = 25^\circ\text{C}$
Operating Temperature	T_{OPR}	$-20 \sim +80$	$^\circ\text{C}$	
Storage Temperature	T_{STG}	$-30 \sim +80$	$^\circ\text{C}$	
Soldering Temperature	T_{SOL}	240	$^\circ\text{C}$	

‡Soldering condition: Soldering condition must be completed within 3 seconds at 230°C

Electro-Optical Characteristics [$T_a = 25^\circ\text{C}$]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F = 20\text{mA}$		3.80	4.30	V
Reverse Current	I_R	$V_R = 5\text{V}$			10	μA
Total Radiated Power	P_O	$I_F = 20\text{mA}$		4.0		mW
Brightness	I_v	$I_F = 20\text{mA}$	400	700		mcd
Peak Wavelength	λ_P	$I_F = 20\text{mA}$		*1		nm
Half Width	$\Delta\lambda$	$I_F = 20\text{mA}$		-		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F = 20\text{mA}$		± 55		deg.

‡ *1; x: $2.3 \pm 0.3E-01$, y: $2.2 \pm 0.3E-01$

‡ Total Radiated Power is measured by Photodyne #500

‡ Brightness is measured by Tektronix J-16.

EPITEX INC. : 4, Nishiaketa-Cho, Higashi-Kujiyou, Minami-Ku, Kyoto, Japan

Tel.: ++81-75-682-2338 Fax: ++81-75-682-2267

e-mail: sales-dep@epitex.com

<http://www.epitex.com>