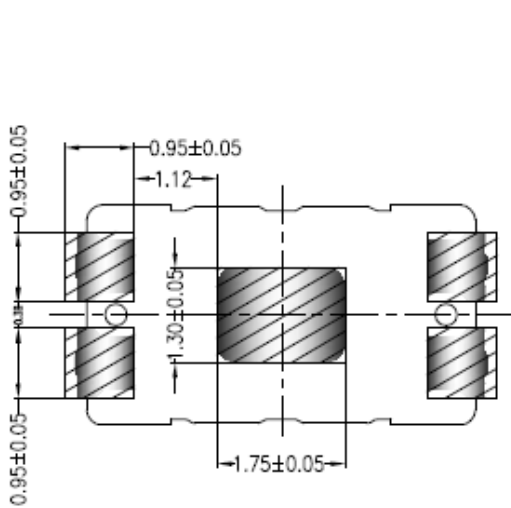
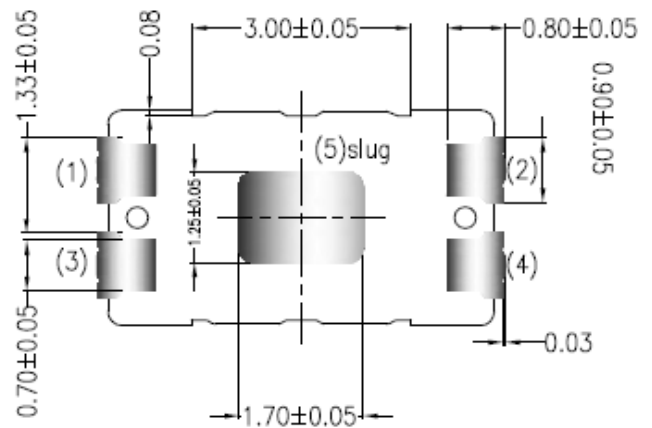
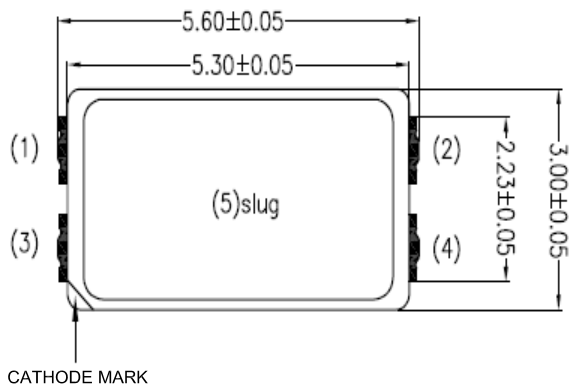


# SURFACE MOUNT WHITE LED TOP VIEW 5.6 X 3.0 X 0.77mm

## FEATURES

- TOP VIEW WHITE
- LED (5.6 x 3.0 x 0.77mm)
- WHITE SMT PACKAGE
- LEAD FRAME PACKAGE WITH INDIVIDUAL 4-PINS
- GaN-BASED LED WITH YELLOW PHOSPHOR
- WIDE VIEW ANGLE (X: 120°/Y: 120°)
- IR REFLOW SOLDERING
- ESD PROTECTION
- Pb FREE

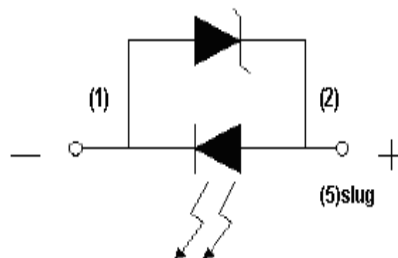
## DIMENSIONS



RECOMMENDED SOLDERING PAD

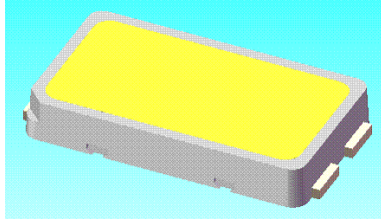


UNIT: mm



JKL PART NO.: ZSM-T5630-WH-01





## SURFACE MOUNT WHITE LED TOP VIEW 5.6 X 3.0 X 0.77mm

### SPECIFICATIONS

**ABSOLUTE MAXIMUM RATINGS** (TA = 25°C)  
(LED die)

ITEM	SYMBOL	ABSOLUTE MAXIMUM RATING	UNIT
Forward Current	$I_F$	180	mA
Pulse Forward Current	$I_{FP}$	300	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	650	mW
Operating Temperature	$T_{opr}$	-30 ~ +85	°C
Storage Temperature	$T_{stg}$	-40 ~ +100	°C
Soldering Temperature	$T_{sld}$	Reflow Soldering: 260° C for 10 secs Hand Soldering: 350° C for 3 secs	

(Zener diode)

ITEM	SYMBOL	CONDITION	MIN	MAX	UNIT
Reverse Leakage Current	$I_R$	$V_R = 5V$	---	0.5	uA
Zener Voltage	$V_Z$	$I_Z = 5mA$	5.8	6.8	V
Forward Voltage	$V_F$	$I_F = 20mA$	---	1.2	V

\* $I_{FP}$  Conditions: Pulse Width  $\leq 10msec$ , and duty  $\leq 1/10$

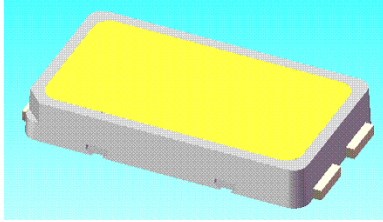
**ELECTRICAL & OPTICAL OPERATING CHARACTERISTICS** (TA = 25°C)

ITEM		SYMBOL	CONDITION	MIN	MAX	UNIT
Forward Voltage	E0	$V_F$	$I_F = 120mA$	2.9	3.0	Volts
	E1			3.0	3.1	
	E2			3.1	3.2	
	E3			3.2	3.3	
	E4			3.3	3.4	
	E5			3.4	3.5	
Luminous Flux	Rank I1	Lm	$I_F = 120mA$	20	23	Lm
	Rank I2			23	27	
	Rank J1			27	31	
	Rank J2			31	35	
	Rank K1			35	41	

### TABLE OF INTENSITY RANKS

RANK	LUMINOUS INTENSITY (mcd)	LUMINOUS FLUX (lm)
I1	6700-7700	20-23
I2	7700-9000	23-27
J1	9000-10300	27-31
J2	10300-11700	31-35
K1	11700-13700	35-41

Luminous flux measurement allowance is  $\pm 10\%$  (for reference).

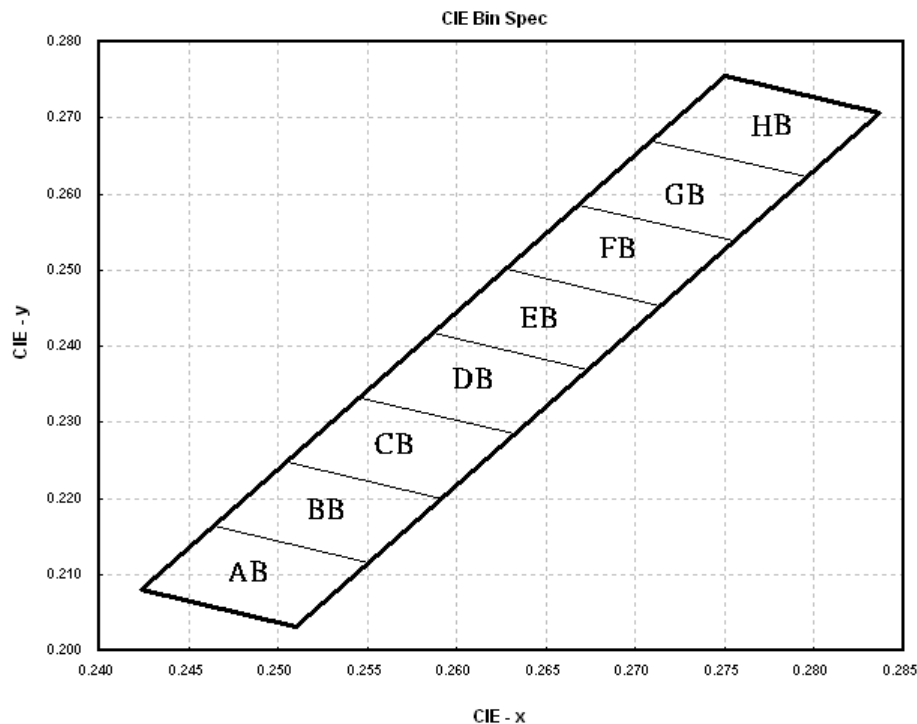


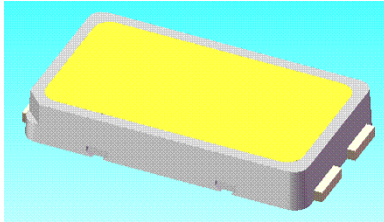
## SURFACE MOUNT WHITE LED TOP VIEW 5.6 X 3.0 X 0.77mm

### BIN RANGE OF CHROMATICITY COORDINATES

	CIE-X	CIE-Y		CIE-X	CIE-Y
HB	0.27498	0.27544	DB	0.26736	0.23688
	0.27090	0.26700		0.26328	0.22844
	0.27960	0.26220		0.25458	0.23324
	0.28368	0.27064		0.25866	0.24168
GB	0.27090	0.26700	CB	0.25458	0.23324
	0.26682	0.25856		0.25050	0.22480
	0.27552	0.25376		0.25920	0.22000
	0.27960	0.26220		0.26328	0.22844
FB	0.26682	0.25856	BB	0.25050	0.22480
	0.26274	0.25012		0.24642	0.21636
	0.27144	0.24532		0.25512	0.21156
	0.27552	0.25376		0.25920	0.22000
EB	0.26274	0.25012	AB	0.24642	0.21636
	0.25866	0.24168		0.24234	0.20792
	0.26736	0.23688		0.25104	0.20312
	0.27144	0.24532		0.25512	0.21156

### CHROMATICITY DIAGRAM

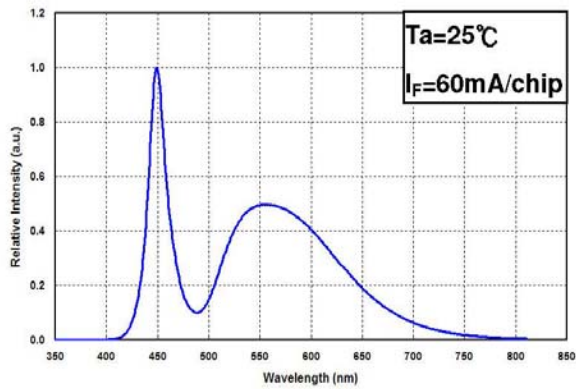




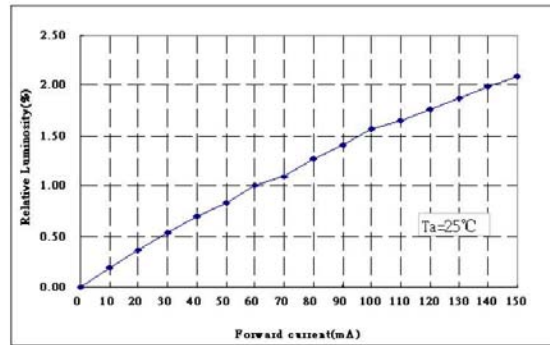
# SURFACE MOUNT WHITE LED TOP VIEW 5.6 X 3.0 X 0.77mm

## TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

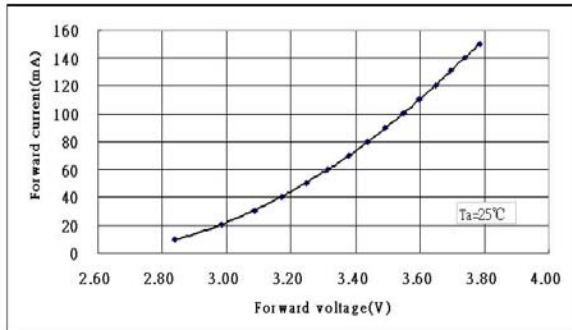
### Spectrum



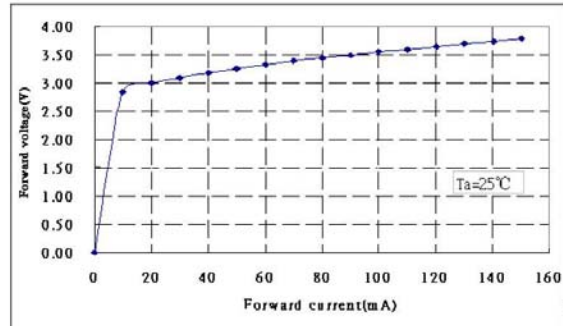
### I<sub>F</sub> vs. Relative Luminosity



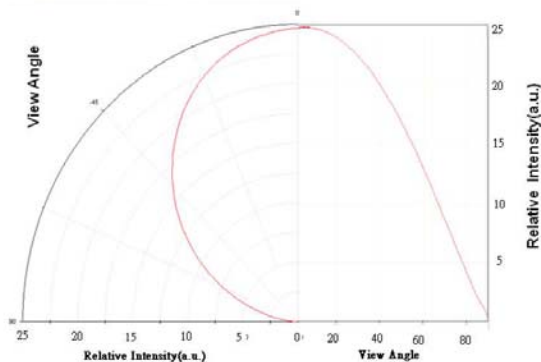
### V<sub>f</sub> - I<sub>F</sub>

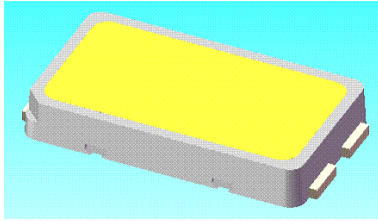


### I<sub>F</sub> - V<sub>f</sub>



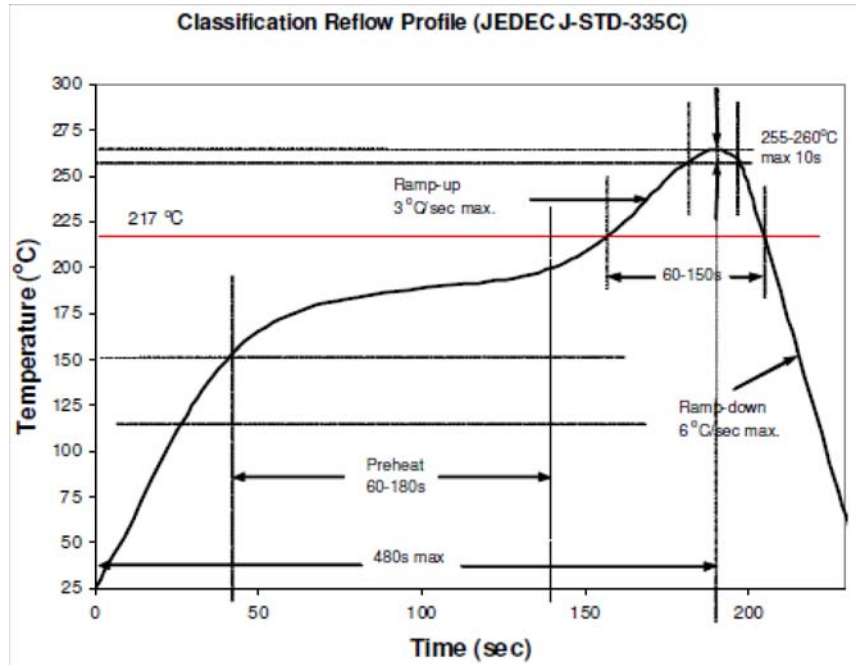
## Radiation Pattern



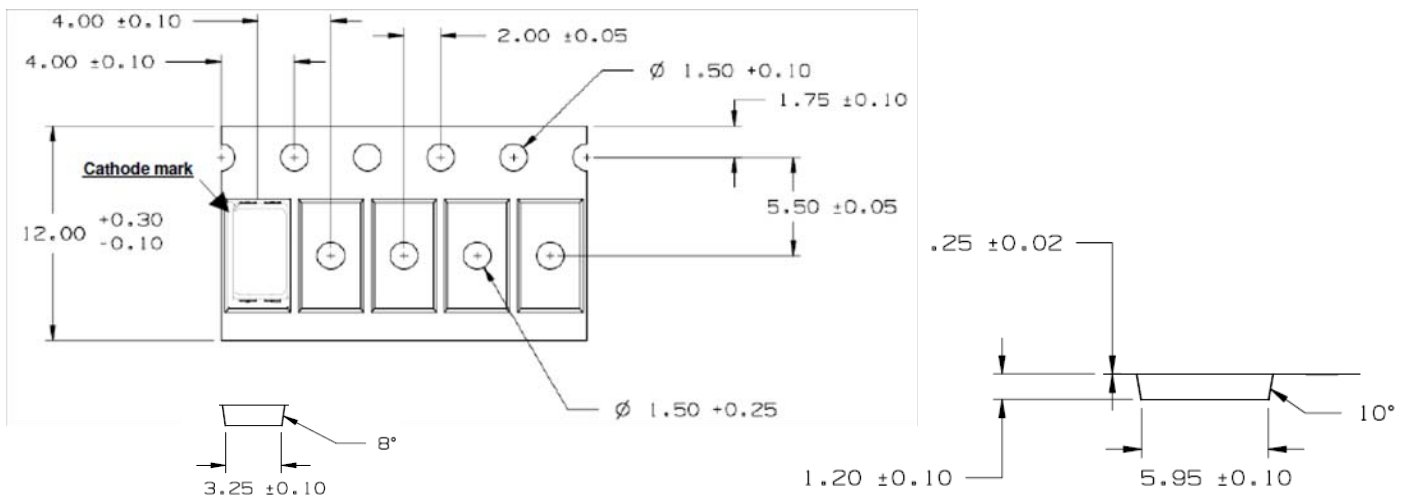


# SURFACE MOUNT WHITE LED TOP VIEW 5.6 X 3.0 X 0.77mm

## LEAD-FREE SOLDER



## PACKAGING: 3500 pcs/REEL



### NOTES:

1. STORE IN ORIGINAL MOISTURE PROOF PACKAGING.
2. PACKAGING SHOULD BE STORED AT 30°C OR LESS AND AT 60% RH OR LESS.
3. LED SHOULD BE SOLDERED WITHIN 168 HOURS AFTER OPENING.
4. LED'S ARE STATIC SENSITIVE DEVICES. DO NOT HANDLE WITHOUT APPROPRIATE STATIC PROTECTION.
5. CLEAN ONLY WITH ISOPROPYL ALCOHOL. DO NOT USE ULTRASONIC CLEANING.
6. **CAUTION:** DO NOT LOOK DIRECTLY INTO LIT LED. INJURY TO EYES CAN OCCUR.