

SURFACE MOUNT RGB LED TOP VIEW 5.4 X 5.0 X 1.6mm

FEATURES

TOP VIEW

LED (5.4 x 5.0 x 1.6mm)

LEAD FRAME PACKAGE WITH INDIVIDUAL 6-PINS
GaN-BASED LEDS (Blue/Green), AlGaInP LED (Red)

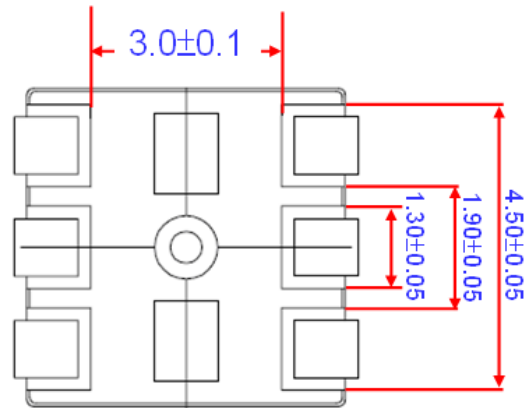
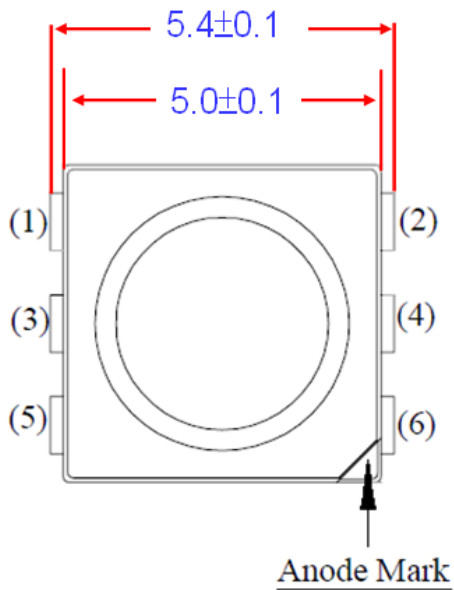
WIDE VIEW ANGLE (X: 120°/Y: 120°)

IR REFLOW SOLDERING

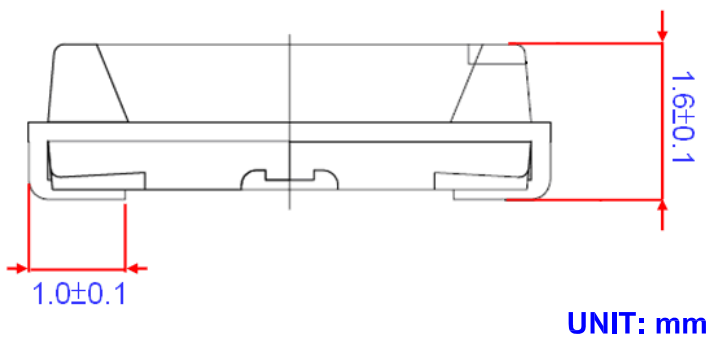
ESD PROTECTION

Pb FREE

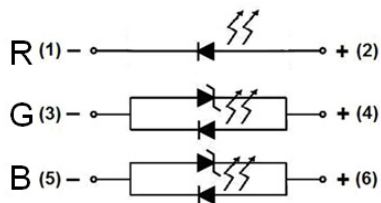
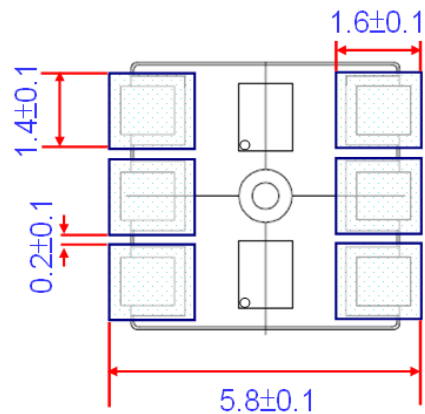
DIMENSIONS



Recommended Soldering Pad Design

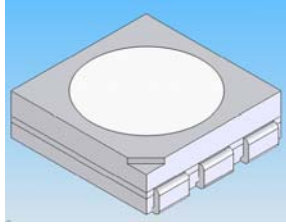


UNIT: mm



JKL PART NO.: ZSM-T5050-RGB





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SPECIFICATIONS

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

ITEM	SYMBOL	ABSOLUTE MAX. RATING	UNIT
Forward Current	I_F	30	mA/1 Chip
Pulse Forward Current*	I_{FP}	100	mA/1 Chip
Reverse Voltage	V_R	5	V/1 Chip
Power Dissipation	P_D	280	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	

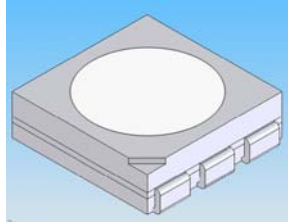
(Zener diode)

ITEM	SYMBOL	CONDITION	MIN	MAX	UNIT
Reverse Leakage Current	I_R	$V_R = 5V$	---	0.5	µA
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 ≤ 10msec, and duty ≤ 1/10

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

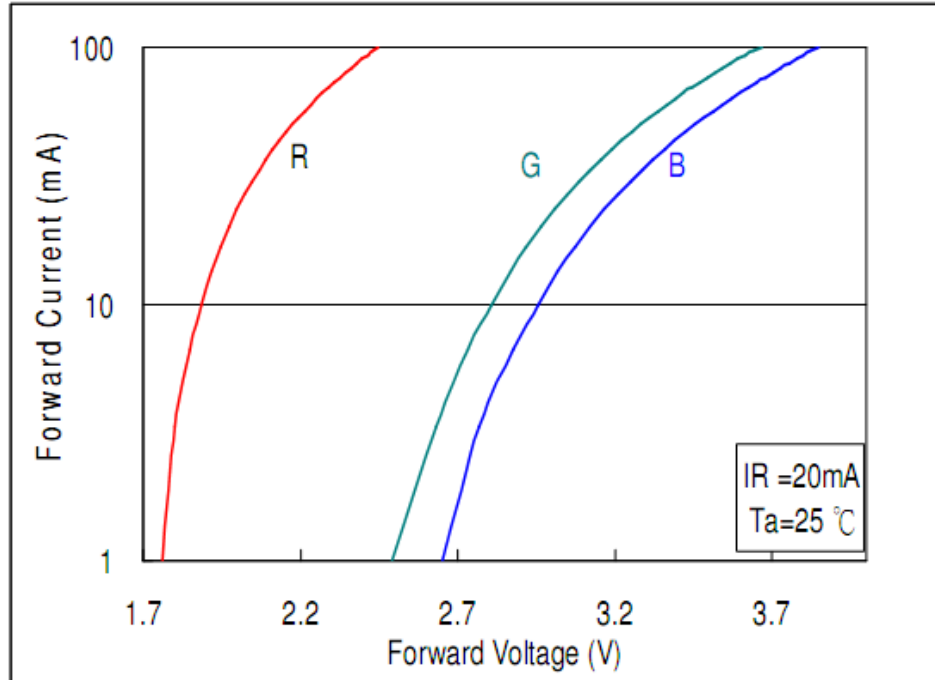
ITEM	SYMBOL	MIN	MAX	UNIT	CONDITION	
Forward Voltage	V_f	R	1.9	2.3	VOLT	I _F = 20mA
		G	3.0	3.4		
		B	3.0	3.4		
Luminous Intensity	I_v	R	300	700	mcd	
		G	930	2000		
		B	230	400		
Dominant Wavelength	W_d	R	620	630	nm	
		G	525	535		
		B	460	470		



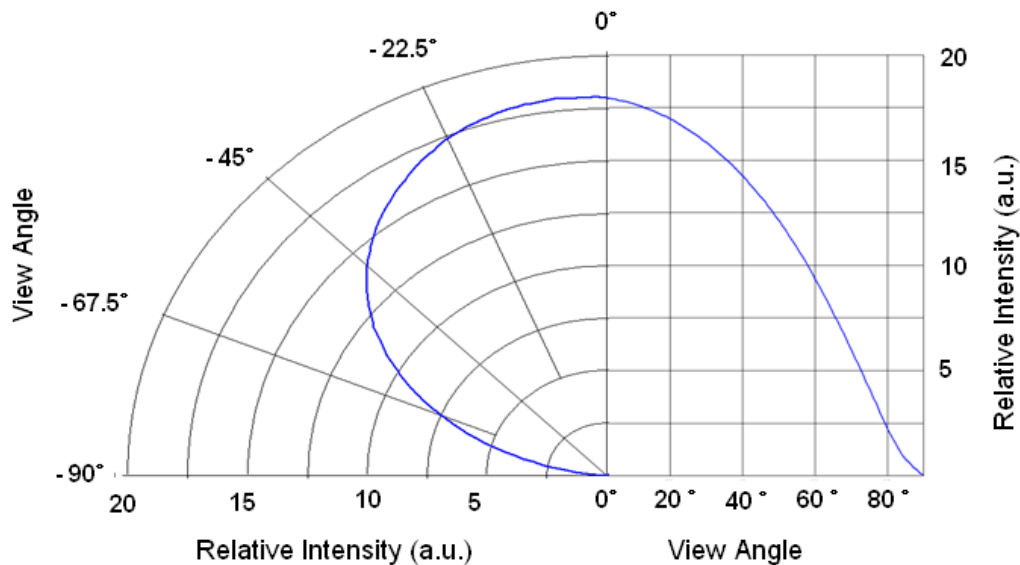
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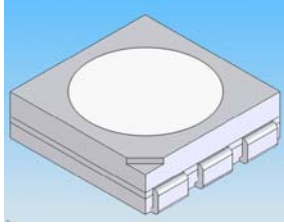
TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

$$I_F - V_f$$



RADIATION PATTERN

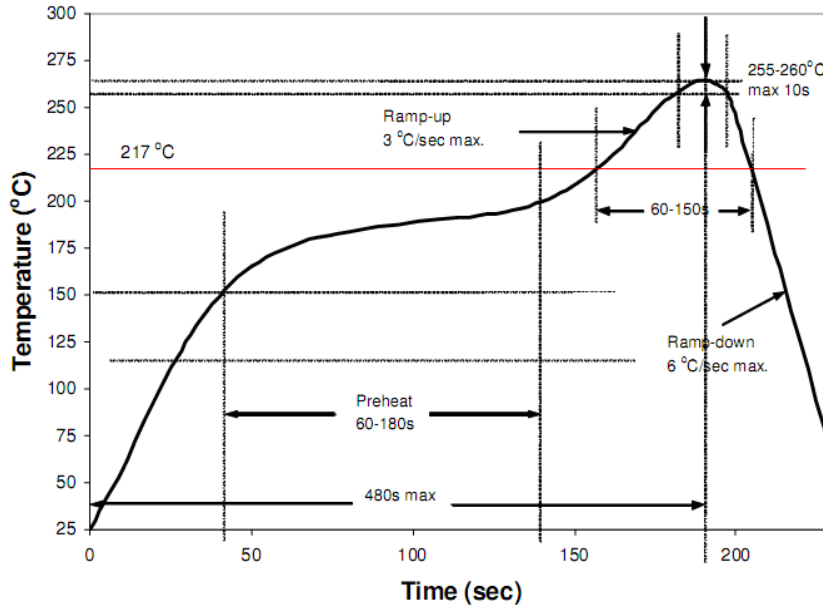




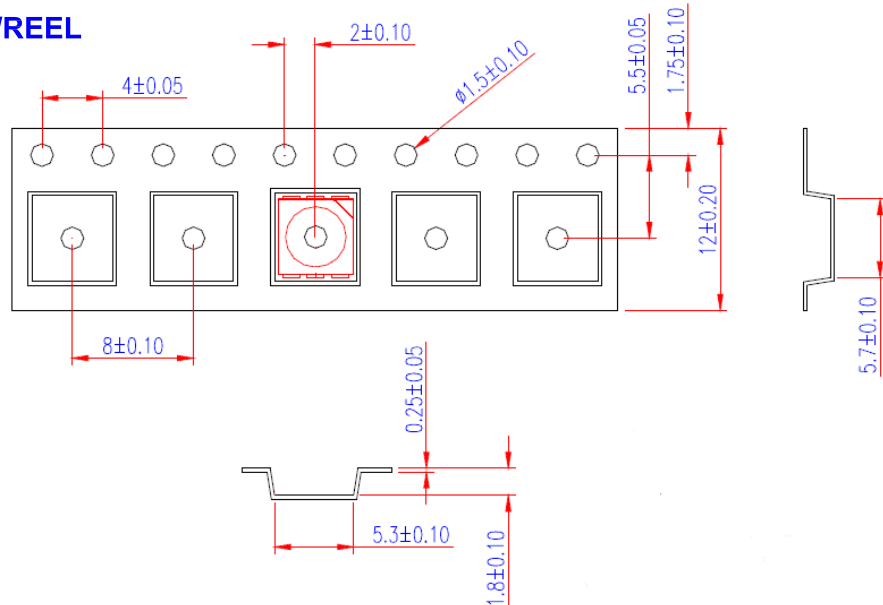
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LEAD-FREE SOLDER

Classification Reflow Profile



PACKAGING: 1000 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.