

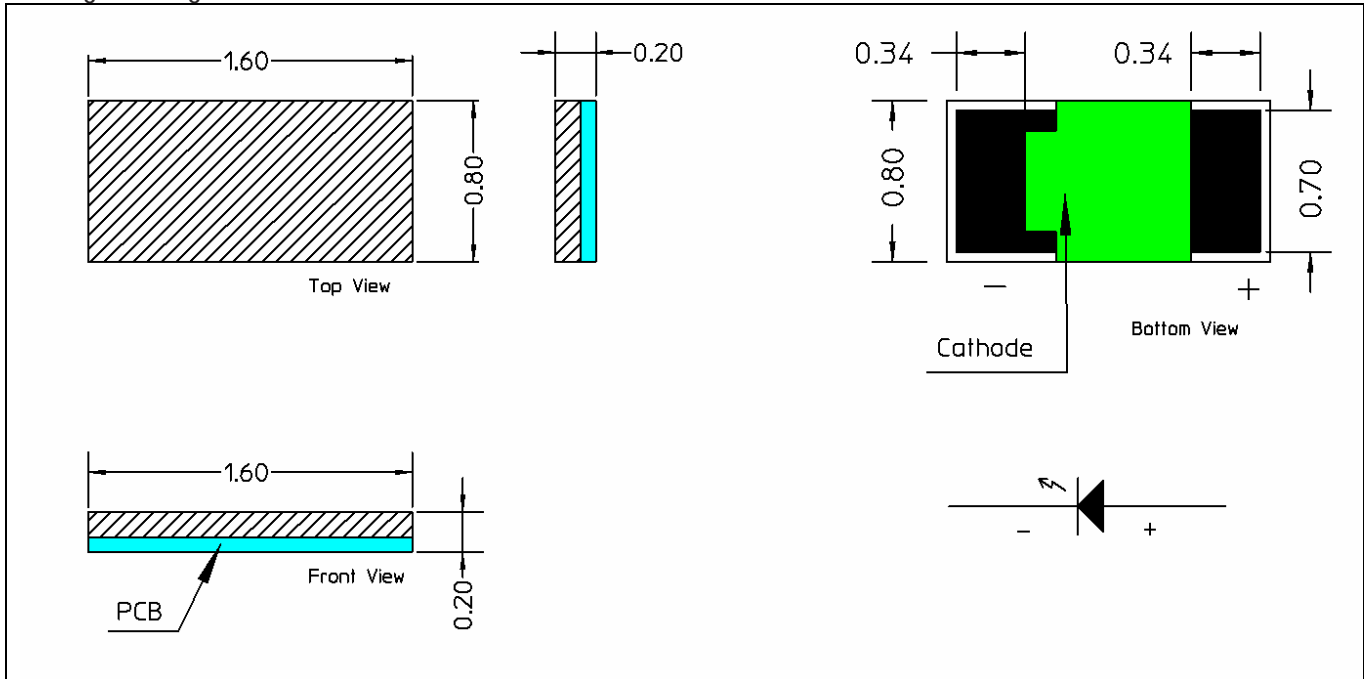
# ASMT-CB20

## SMT Top Fire ChipLED

### Data Sheet



#### Package Drawing



- All dimensions in millimeters.
- Tolerance is  $\pm 0.1$ mm unless otherwise specified.
- Electrode Ag plated.

#### Device Selection Guide

Part Number	Color	Chip
ASMT-CB20	Blue	InGaN

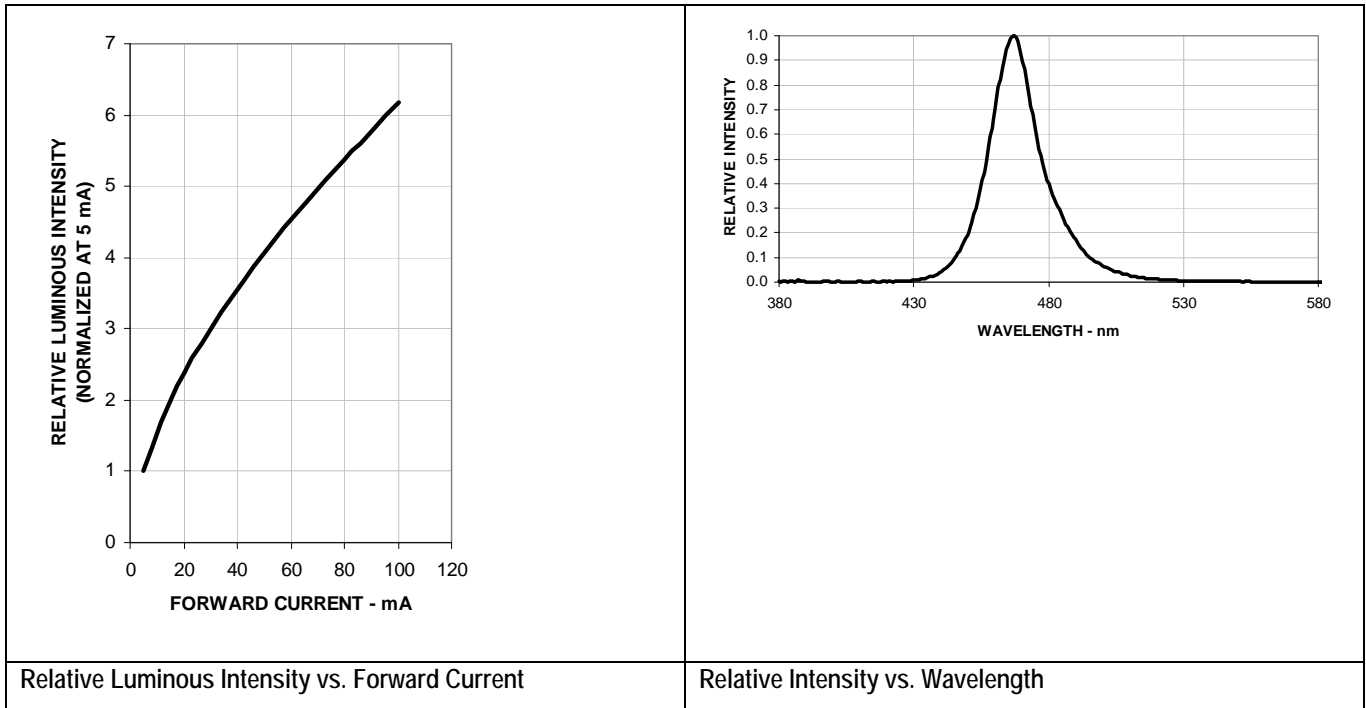
**CAUTION:** Class 1B static sensitive device per JESD22A114. Please observe appropriate precautions during handling and processing.

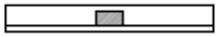
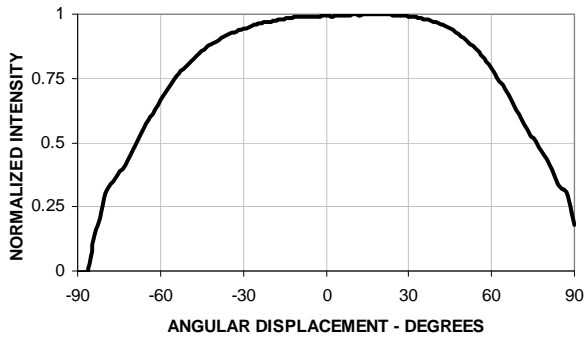
Absolute Maximum Ratings at  $T_A = 25^\circ\text{C}$

Parameter	Rating	Unit
DC Forward Current	10	mA
Power Dissipation	32	mW
Operating Temperature	-40 to +85	$^\circ\text{C}$
Storage Temperature	-40 to +85	$^\circ\text{C}$
Moisture Sensitivity Level (IPC/JEDEC JSTD020)	2A	-

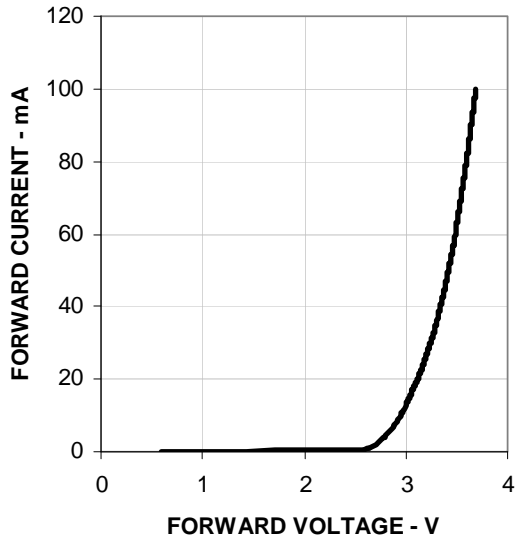
Optical-Electrical Characteristics at  $T_A = 25^\circ\text{C}$

Parameter	Test condition	Rating			Unit
		Min	Typ	Max	
Luminous intensity ( $I_v$ )	$I_F=5\text{mA}$	11.2	25.0	71.5	mcd
Viewing Angle ( $2\theta_{1/2}$ )	$I_F=5\text{mA}$		130		deg.
Peak wavelength ( $\lambda_p$ )	$I_F=5\text{mA}$		468		nm
Dominant wavelength ( $\lambda_d$ )	$I_F=5\text{mA}$	465		475	nm
Forward voltage ( $V_F$ )	$I_F=5\text{mA}$	2.55		3.15	V

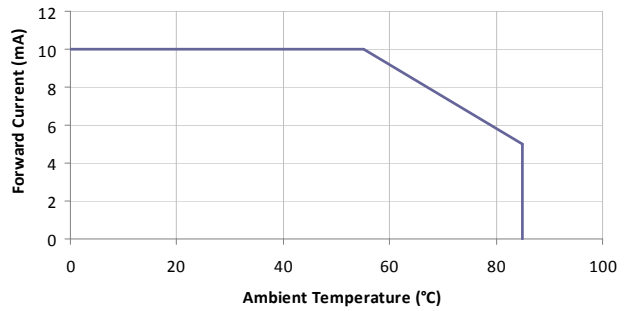




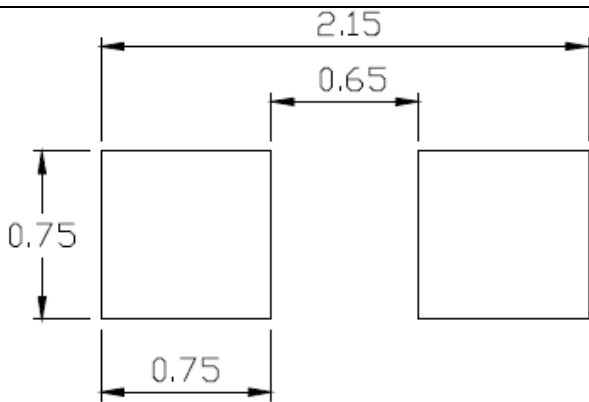
Radiation Pattern



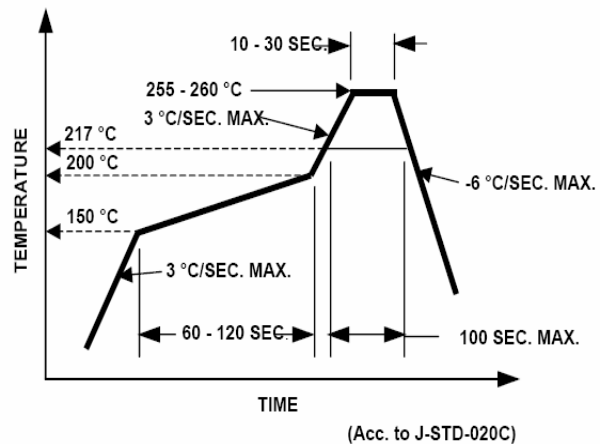
Forward Current vs. Forward Voltage



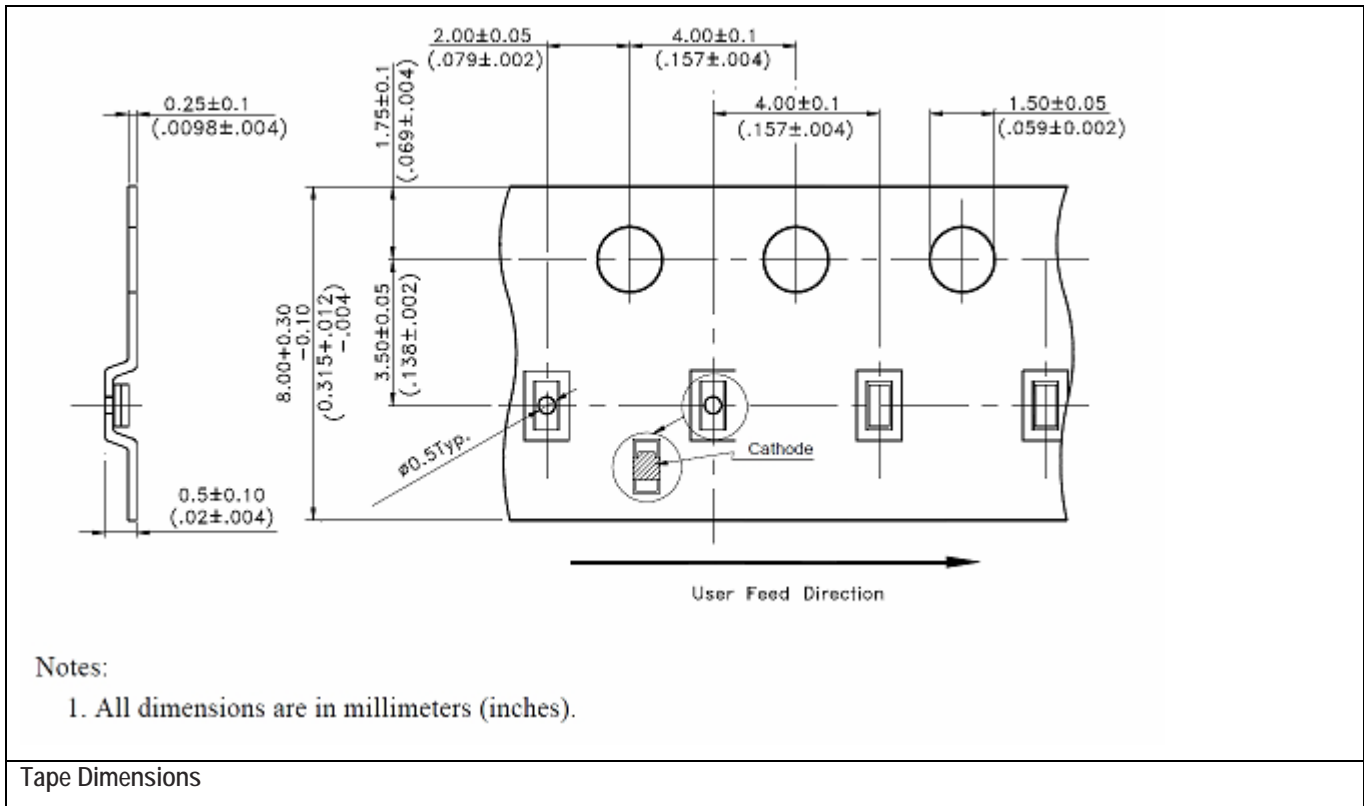
Forward Current vs. Ambient Temperature



Recommended Soldering Land Pattern



Recommended Pb-Free Reflow Soldering Profile



#### Luminous Intensity Bin

Bin	Min (mcd)	Max (mcd)
L	11.2	18.0
M	18.0	28.5
N	28.5	45.0
P	45.0	71.5

Tolerance ±15%

#### Color Bin

Bin	Min (nm)	Max (nm)
B	465	470
C	470	475

Tolerance ± 1nm

#### Forward Voltage Bin

Bin	Min (V)	Max (V)
1	2.55	2.75
2	2.75	2.95
3	2.95	3.15

Tolerance ± 0.1V