

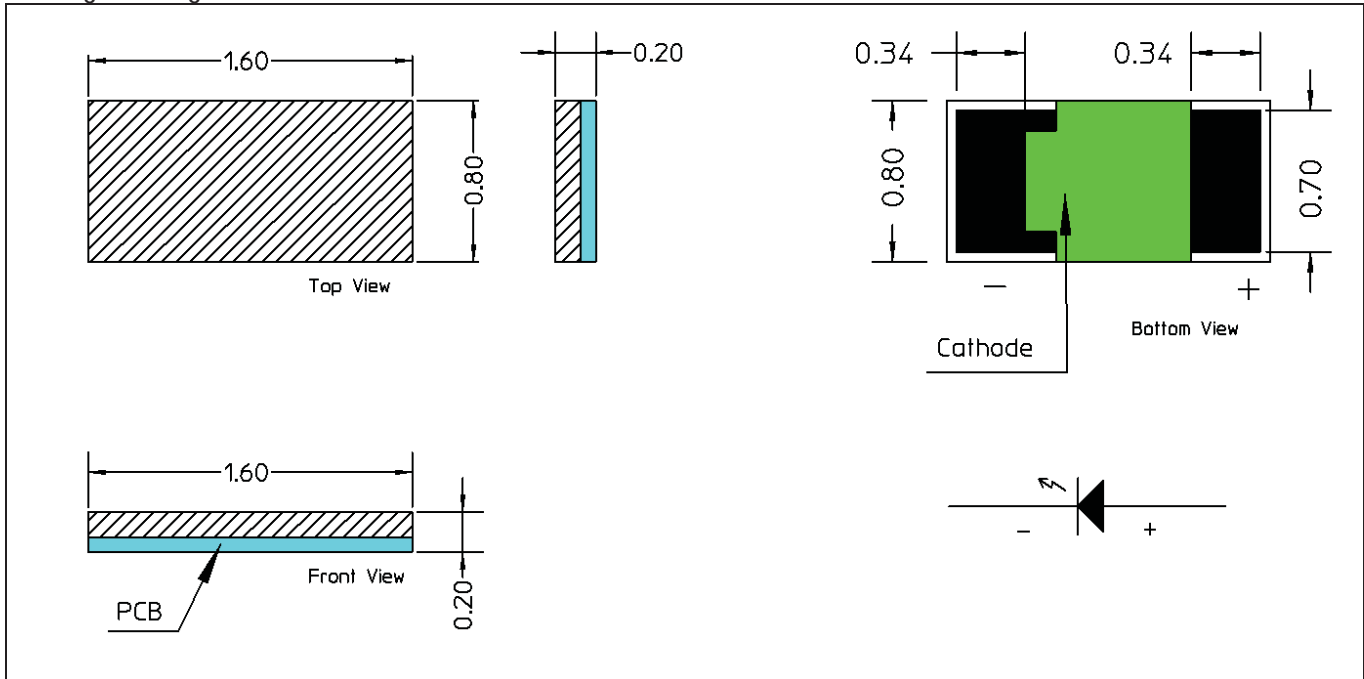
ASMT-CB20

SMT Top Fire ChipLED

Data Sheet



Package Drawing



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

Device Selection Guide

Part Number	Color	Chip
ASMT-CB20	Blue	InGaN

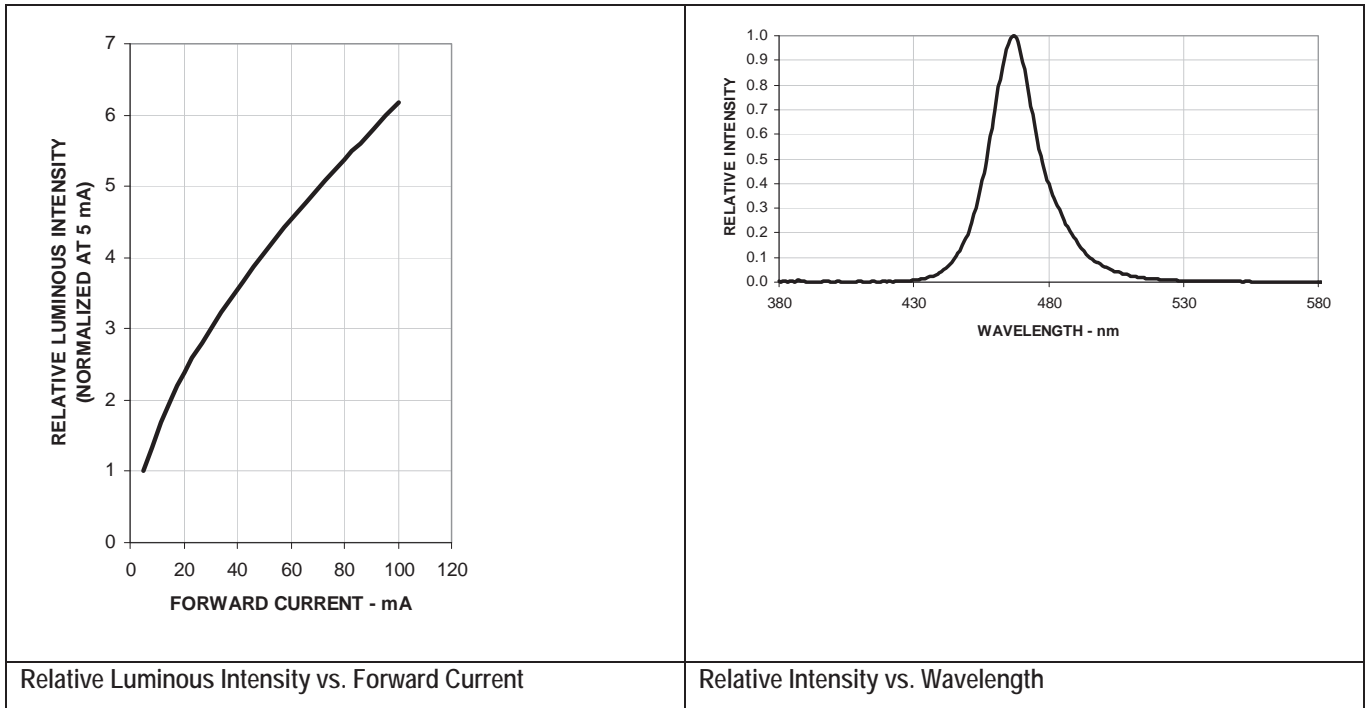
CAUTION: Class 1B static sensitive device per JESD22A114. Please observe appropriate precautions during handling and processing.

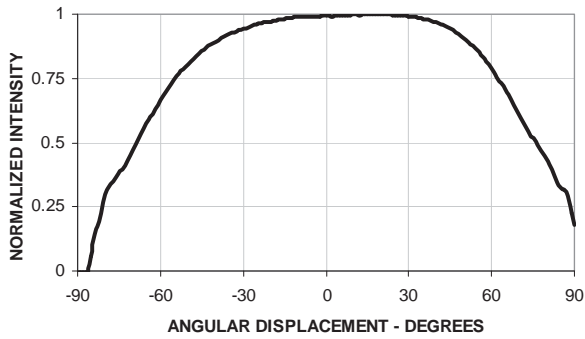
Absolute Maximum Ratings at $T_A = 25^\circ\text{C}$

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	-

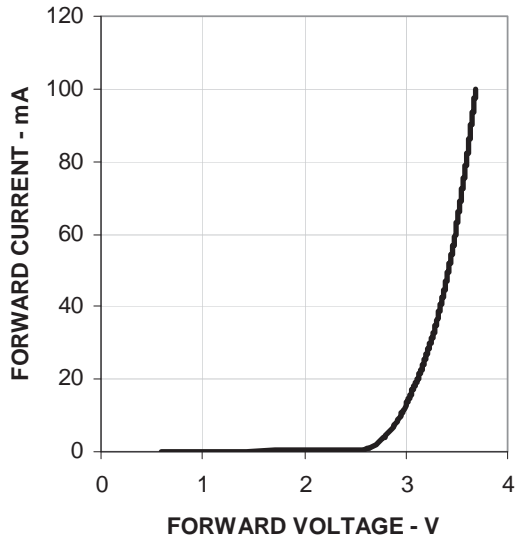
Optical-Electrical Characteristics at $T_A = 25^\circ\text{C}$

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 (λ_p)	$I_F=5\text{mA}$		468		nm
Dominant wavelength (λ_d)	$I_F=5\text{mA}$	465		475	nm
Forward voltage (V_F)	$I_F=5\text{mA}$	2.55		3.15	V

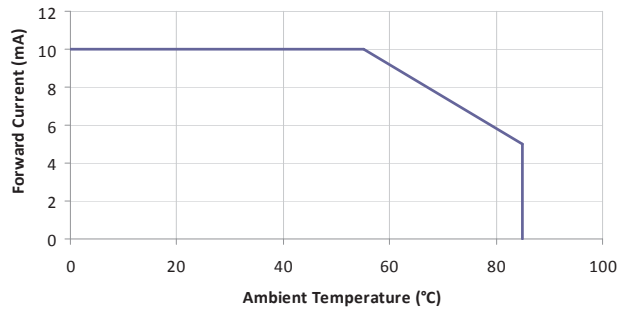




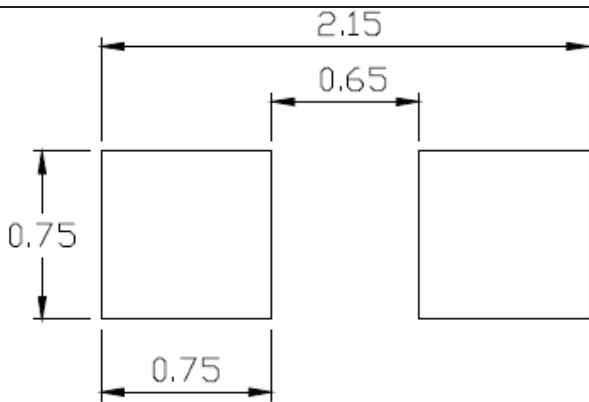
Radiation Pattern



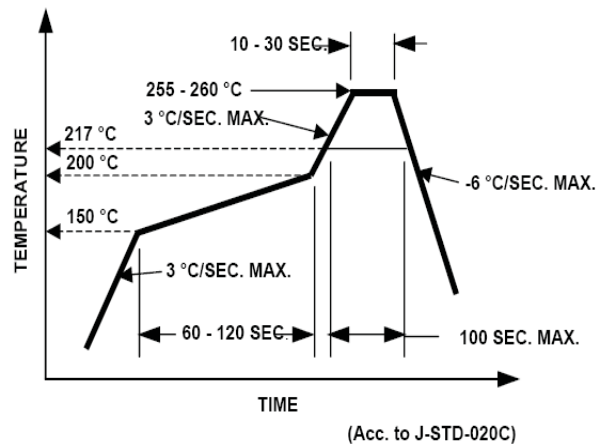
Forward Current vs. Forward Voltage



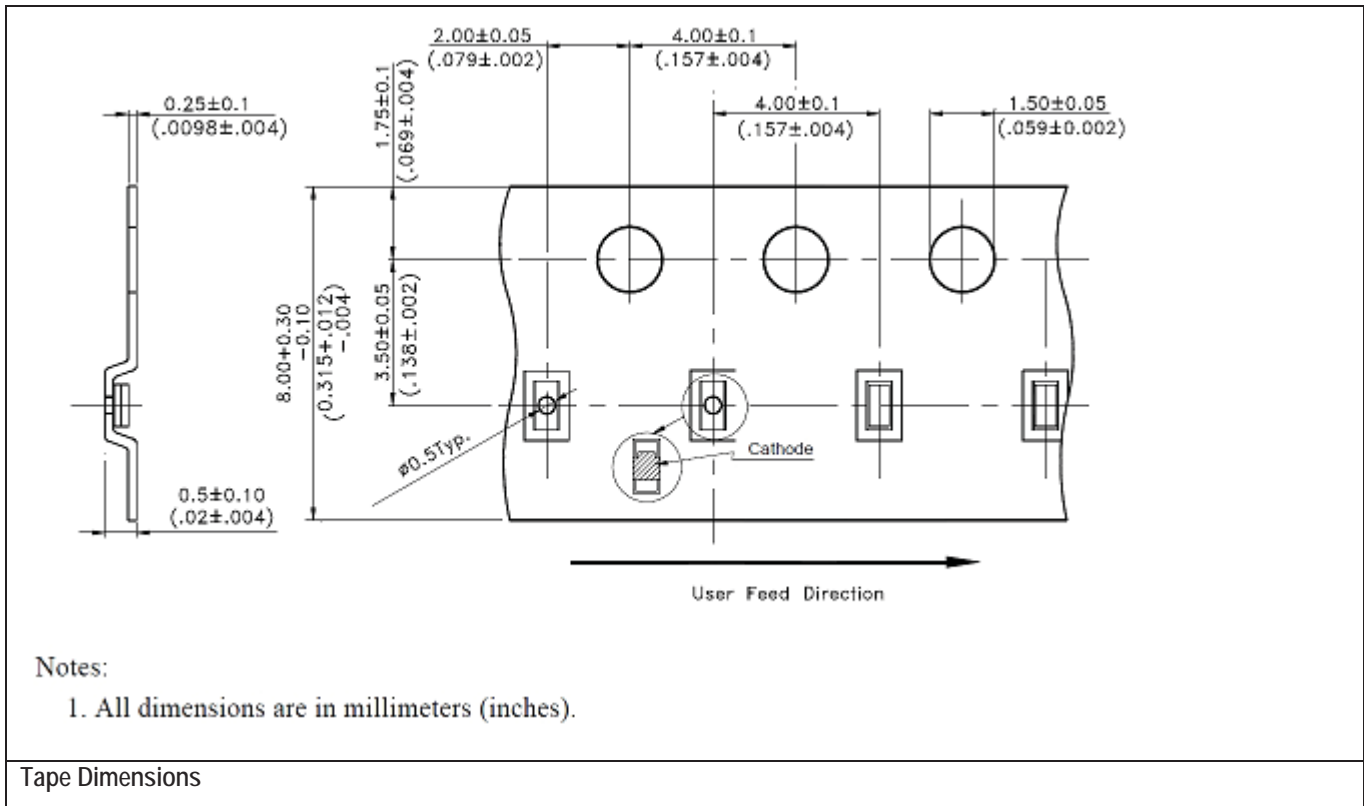
Forward Current vs. Ambient Temperature



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 $\pm 15\%$

Color Bin

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

Tolerance ± 1 nm

Forward Voltage Bin

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

Tolerance ± 0.1 V