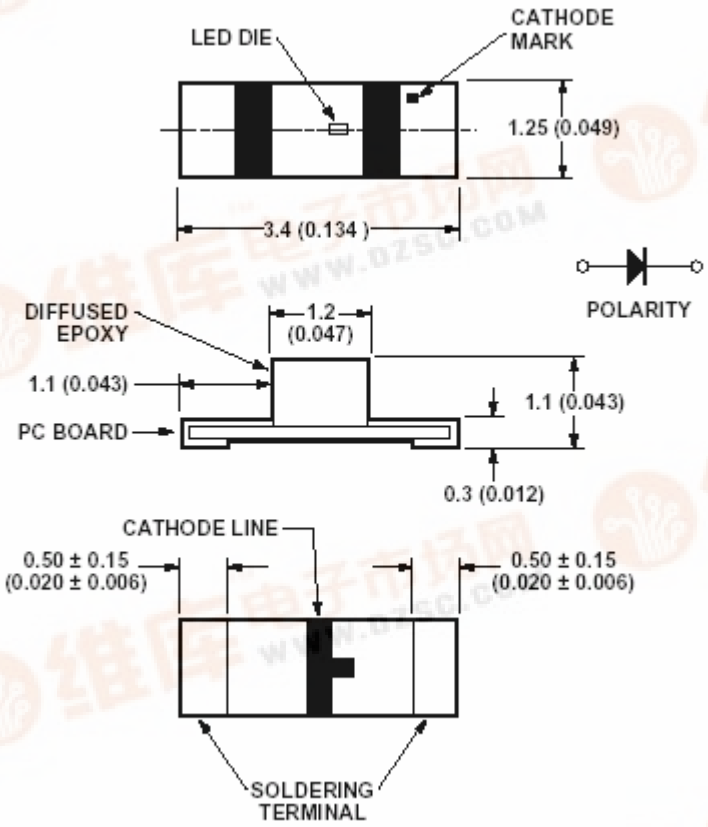
Preliminary Datasheet
Agilent AlInGaP chipLED

Package Dimensions



HSMX-C265

Notes:

1. Dimensions in mm.
2. Tolerance ± 0.1 mm unless otherwise noted.

Device Selection Guide

Part Number	Color	Parts Per Reel
HSMA-C265	Amber	3000
HSMC-C265	Red	3000
HSML-C265	Orange	3000
HSMT-C265	Deep Red	3000

Absolute Maximum Ratings at T_A = 25°C

Parameter	HSMA/C/L/T-C265	Units
DC Forward Current	25	mA
Power Dissipation	65	mW
Reverse Voltage (I_R = 10μA)	5	V
LED Junction Temperature	95	°C
Operating Temperature Range	-30 to +85	°C
Storage Temperature Range	-40 to +85	°C
Soldering Temperature	See soldering profile(Figure 1)	

Reverse Voltage Testing (Tolerance: +/- 30%)

Electrical Characteristics at T_A = 25°C

Part Number	Forward Voltage V_F (Volts) @ I_F = 20 mA		Reverse Breakdown V_R (Volts) @ I_R = 100 μA Min.
	Typ.	Max.	
HSMA/C/L/T-C265	**1.9**	**2.6**	5

Optical Characteristics at T_A = 25°C

Part Number	Luminous Intensity I_v (mcd) @ 20 mA[1]		Peak Wavelength λ_{peak} (nm) Typ.	Dominant Wavelength λ_d (nm) Typ[2].
	Min.	Typ.		
HSMA-C265	28.5	75	595	592
HSMC-C265	28.5	75	637	626
HSML-C265	28.5	75	609	605
HSMT-C265	11.2	25	660	639

Notes:

1. The luminous intensity I_V is measured at the peak of the spatial radiation pattern which may not be aligned with the mechanical axis of the lamp package.
2. The dominant wavelength, λ_d, is derived from the CIE Chromaticity Diagram and represents the perceived color of the device.

Light Intensity (Iv) Bin Limit[1]

	Intensity (mcd)	
Bin ID	**Min.**	**Max.**
A	0.11	0.18
B	0.18	0.29
C	0.29	0.45
D	0.45	0.72
E	0.72	1.10
F	1.10	1.80
G	1.80	2.80
H	2.80	4.50
J	4.50	7.20
K	7.20	11.20
L	11.20	18.00
M	18.00	28.50
N	28.50	45.00
P	45.00	71.50
Q	71.50	112.50
R	112.50	180.00
S	180.00	285.00
T	285.00	450.00
U	450.00	715.00
V	715.00	1125.00
W	1125.00	1800.00
X	1800.00	2850.00
Y	2850.00	4500.00

Tolerance: ±15%

Note:

1. Bin categories are established for classification of products. Products may not be available in all categories. Please contact your Agilent representative for information on currently available bins.

Amber Color Bin Limits

Bin ID	Dominant Wavelength (nm)	
	Min.	**Max.**
A	582.0	584.5
B	584.5	587.0
C	587.0	589.5
D	589.5	592.0
E	592.0	594.5
F	594.5	597.0

Tolerance : + / - 1 nm

Red Color Bin Limits

Bin ID	Dominant Wavelength (nm)	
	Min.	**Max.**
-	615.0	630.0

Tolerance : + / - 1 nm

Orange Color Bin Limits

Bin ID	Dominant Wavelength (nm)	
	Min.	Max.
A	597.0	600.0
B	600.0	603.0
C	603.0	606.0
D	606.0	609.0
E	609.0	612.0
F	612.0	615.0

Tolerance : + / - 1 nm

Deep Red Color Bin Limits

Bin ID	Dominant Wavelength (nm)	
	Min.	Max.
-	635.0	646.0

Tolerance : + / - 1 nm

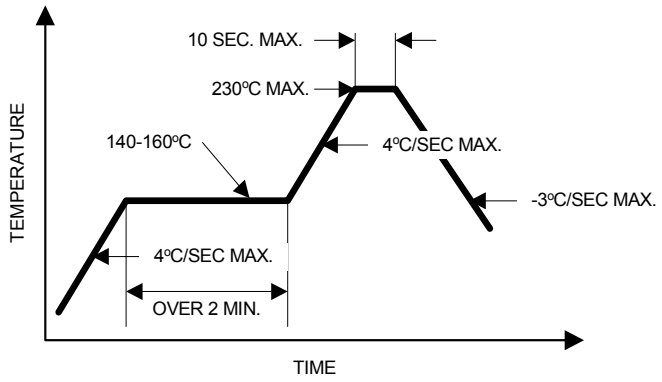


Figure 1: Recommended Reflow Soldering Profile

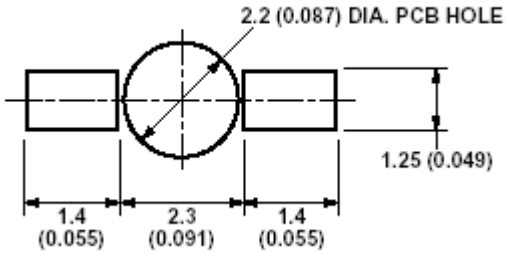


Figure 2: Recommended Soldering Pattern

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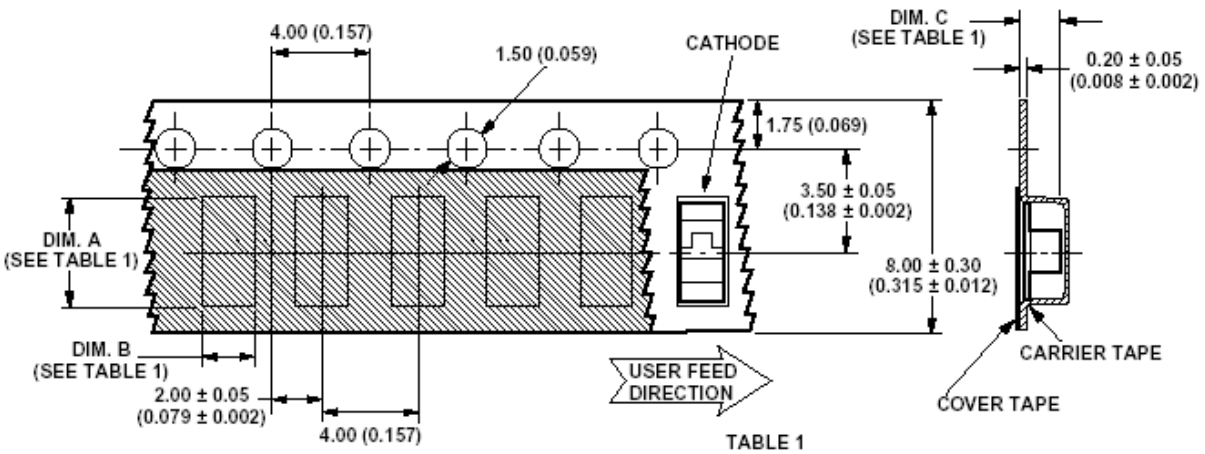

TABLE 1
DIMENSIONS IN MILLIMETERS (INCHES)

PART NUMBER	DIM. A ± 0.10 (0.004)	DIM. B ± 0.10 (0.004)	DIM. C ± 0.10 (0.004)
HSMx-C265 SERIES	3.70 (0.146)	1.45 (0.057)	1.30 (0.051)

Figure 3: Tape Dimensions

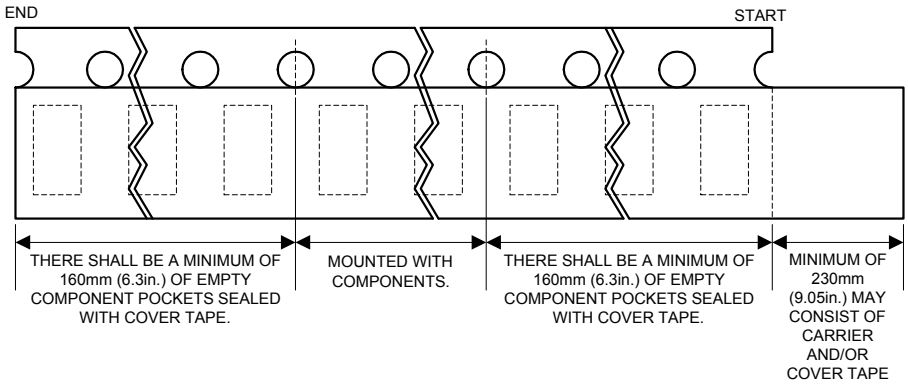

Figure 4: Tape Leader and Trailer Dimensions.

Notes:
1. All dimensions in millimeters (inches).
2. Tolerance is ± 0.1 mm (± 0.004 in.) unless otherwise specified.

Convective IR Reflow Soldering

For more information on IR reflow soldering, refer to Application Note 1060, *Surface Mounting SMT LED Indicator Components*.

Storage Condition : 5 to 30 °C @ 60%RH max.

Baking is required under the condition :

a) the blue silica gel indicator becoming white / transparent color
b) the pack has been open for more than 1 week

Baking recommended condition : 60 ± 5 °C for 20 hrs