



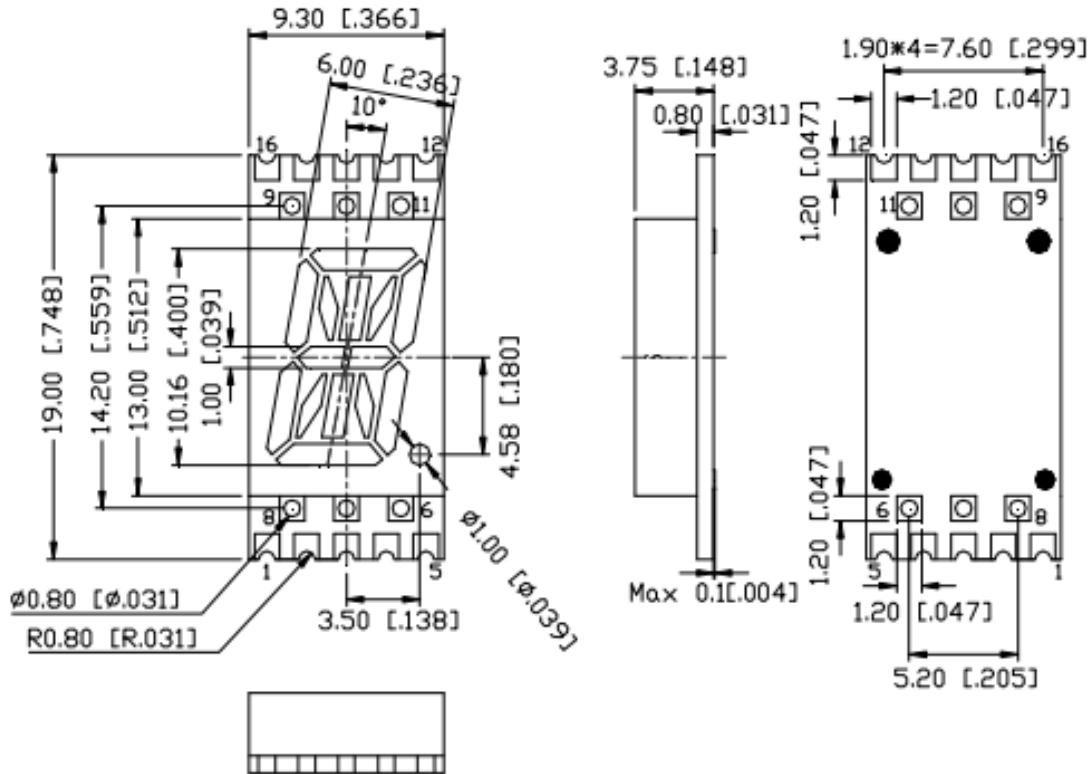
American Opto Plus LED Corp.

SMA4018E-C G/W

SMC4018E-C G/W

0.40" Red Alphanumeric Single Digit SMD Display

MECHANICAL DIMENSIONS



Chip Material	Color		Device
	Emitted	Surface	
AlGaInP	Red	Gray Face, White Segment	Common Anode Common Cathode

Notes:

1. All Dimension in millimeter[inch], tolerance is $\pm 0.25[0.10]$ and angle is $\pm 1^\circ$ unless otherwise noted
2. Bending $\leq \text{Length} * 1\%$



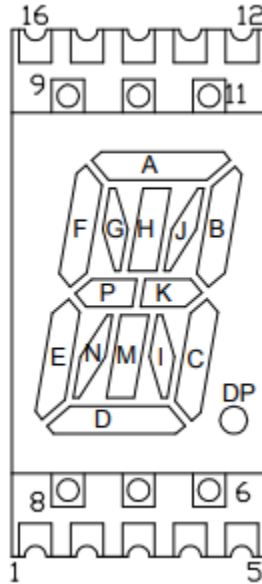
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SMA4018E-C G/W

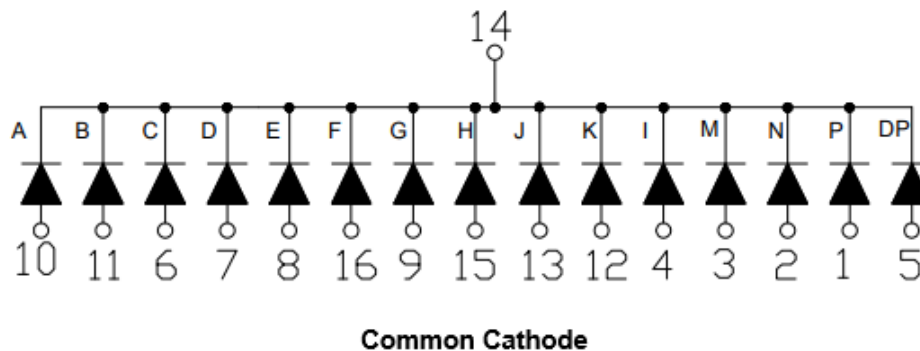
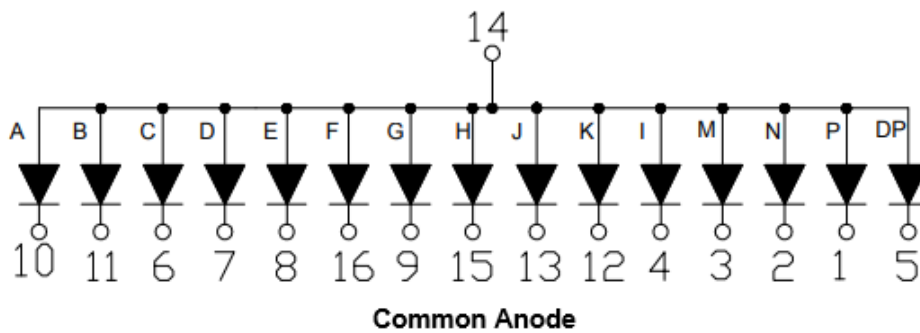
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ALL LIGHT ON SEGMENTS FEATURE & PIN POSITION



INTERNAL CIRCUIT DIAGRAMS





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ABSOLUTE MAXIMUM RATING

(Ta=25°C)

	Symbol	Rating	Unit
Power Dissipation (Per Dice)	P_D	70	mW
Derating Liner from 25°C(Per Dice)	--	0.33	mA/°C
Continuous Forward Current (Per Dice)	I_F	25	mA
Peak Current (Per Dice, duty cycle 1/10,1KHz)	I_{FP}	90	mA
Reverse Voltage (Per Dice)	V_R	5	V
Operating Temp.	T_{OPR}	-40 ~ +105	°C
Storage Temp.	T_{STG}	-40 ~ +105	°C

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25°C)

	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage (Per Segment)	V_F	$I_F=20mA$	--	2	2.8	V
Luminous Intensity (Per Segment)	I_V	$I_F=10mA$	--	7	--	mcd
Peak Emission Wavelength	λ_P		--	644	--	nm
Dominant Wavelength	λ_d		--	630	--	nm
Luminous Intensity Matching Ratio	I_V-m		--	--	2:1	--
Reverse Current	I_R	$V_r=5V$	--	--	100	μA



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LUMINOUS GENERAL IV BIN GRADE

($I_f = 10\text{mA}$)

Bin	Min	Max	Unit
H	4.204	6.726	mcd
J	6.727	10.763	
K	10.764	17.223	

Notes: Tolerance: $\pm 20\%$



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ELECTRICAL/OPTICAL CHARACTERISTICS CURVES

(Ta=25°C)

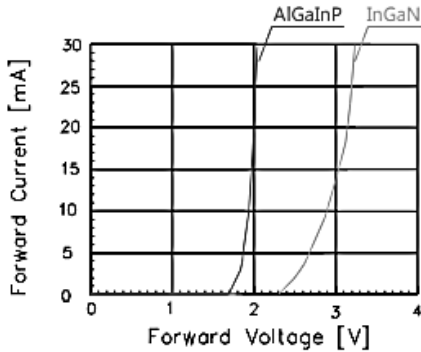


Fig 1. Forward Current vs. Forward Voltage

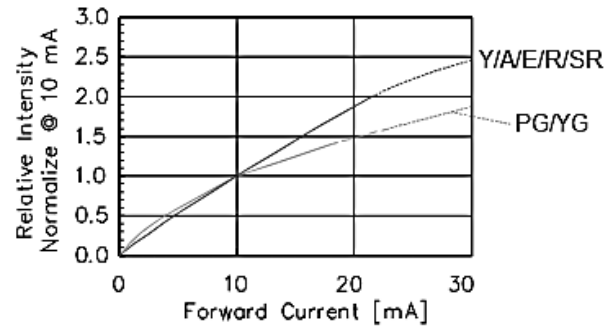


Fig 2. Relative Intensity vs. Forward Current

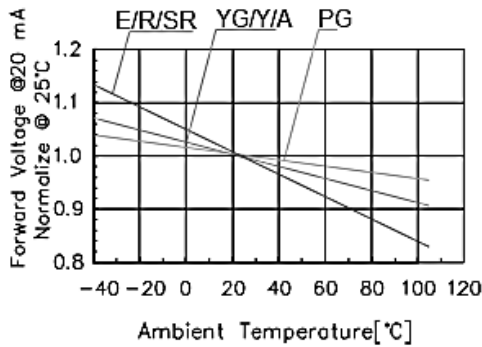


Fig 3. Forward Voltage vs. Temperature

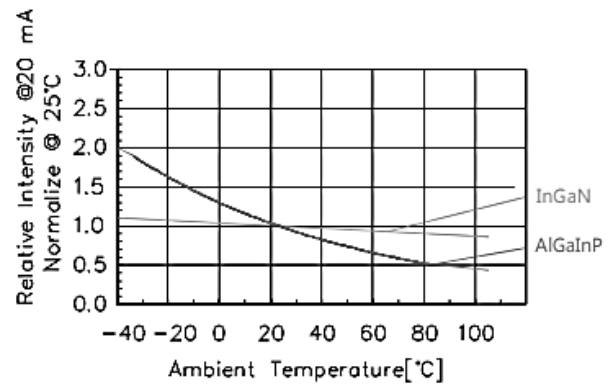


Fig 4. Relative Intensity vs. Temperature

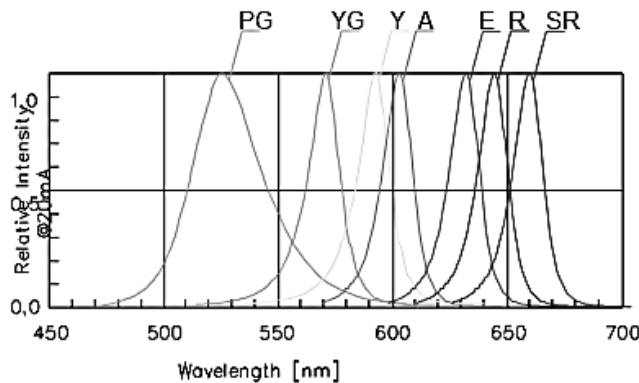


Fig 5. Relative Intensity vs. Wavelength

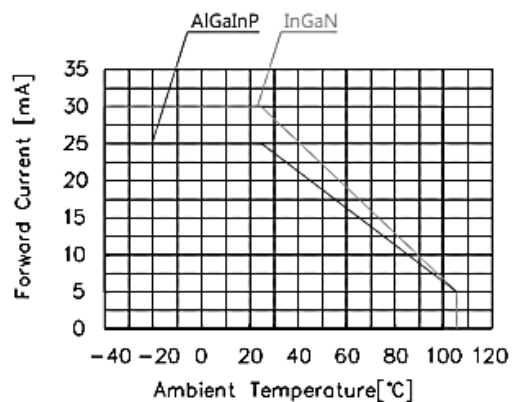


Fig 6. Forward current vs. Temperature



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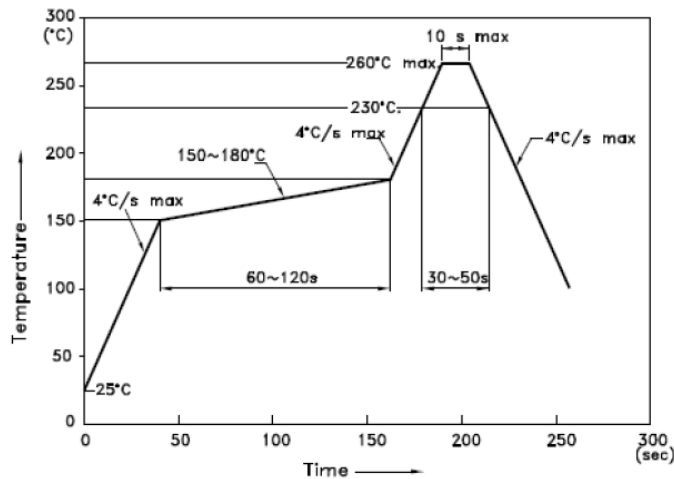
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SOLDERING CHARACTERISTICS

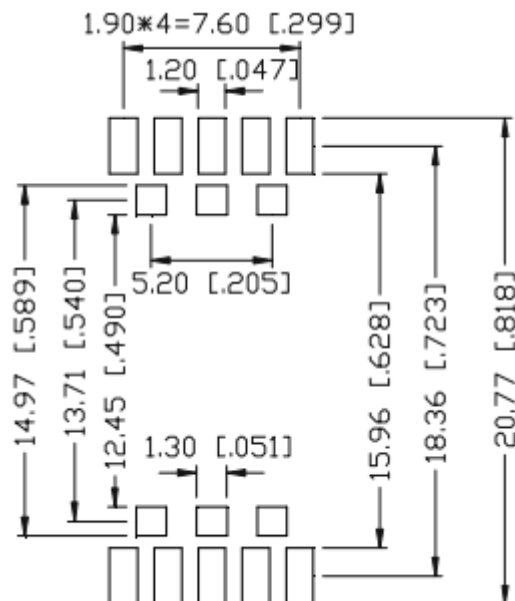
- IR Reflow Temperature / Time:



Notes:

1. We recommend the reflow temperature 245°C (±5°C). The maximum soldering temperature should be limited to 260°C
2. Do not cause stress to the epoxy resin while it is exposed to high temperature
3. Number of reflow process shall be 2 times or less

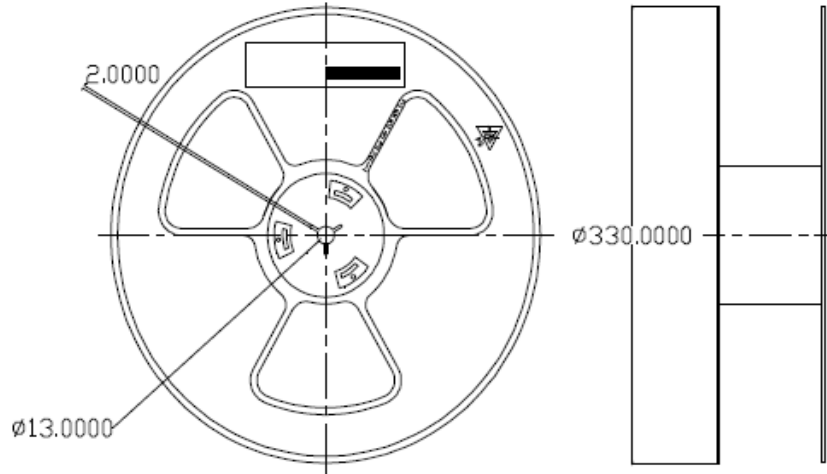
SOLDERING PAD SIZE



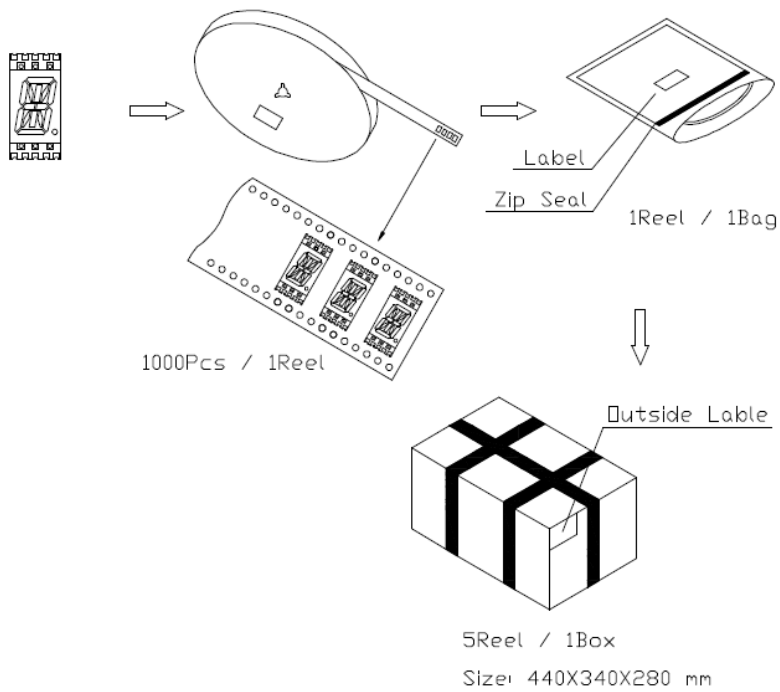


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REEL DIMENSION



Packing & Label Specifications



Note:

The specifications are subject to change without notice.

Please contact AOP for updated information