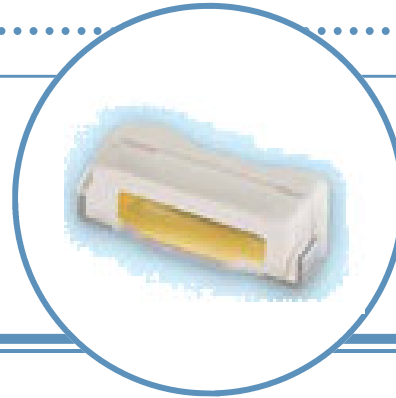


White Surface Mount LED Lamp



OVSRWACR6

- Side-view white LED
- Surface mount lead frame package with two pins
- Wide viewing angles

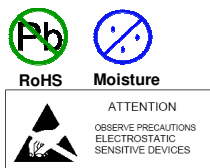
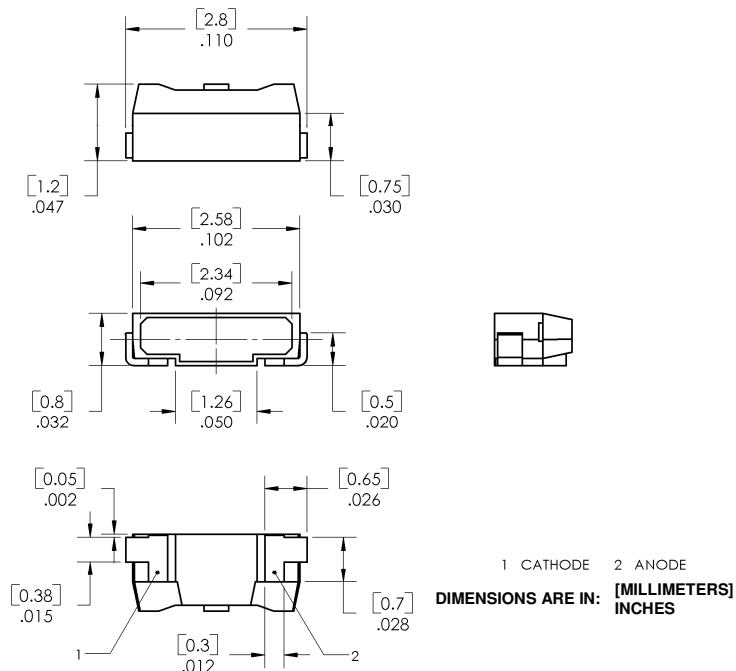


The **OVSRWACR6** is ideal for backlighting LCD screens and for coupling with light guides. This design combines high optical efficiency with wide viewing angles ($x = 120^\circ$, $y = 110^\circ$) and low power consumption.

Applications

- LCD backlight
- Hand-held appliances
- Indicators
- Switch and message illumination

Part Number	Material	Emitted Color	Intensity Typ. mcd	Lens Color
OVSRWACR6	GaN	White	1000	Water Clear



DO NOT LOOK DIRECTLY AT LED WITH UNSHIELDED EYES OR DAMAGE TO RETINA MAY OCCUR.

OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

White Surface Mount LED Lamp

OVSRWACR6



Absolute Maximum Ratings

T_A = 25° C (on metal core PCB¹) unless otherwise noted

Storage Temperature Range	-40 ~ +100° C
Operating Temperature Range	-30 ~ +85° C
Reverse Voltage	5 V
Continuous Forward Current	30 mA
Forward Current Reduction	-0.50 mA/° C
Peak Forward Current (10% Duty Cycle, 1 KHz)	80 mA
Power Dissipation	120 mW

Electrical Characteristics

T_A = 25° C (on metal core PCB¹) unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
I _V	Luminous Intensity ¹	----	1000	----	mcd	I _F = 20 mA
V _F	Forward Voltage	2.8	3.4	3.9	V	I _F = 20 mA
I _R	Reverse Current	----	----	5.0	μA	V _R = 5 V
2 Θ _{1/2}	50% Power Angle	----	x=120° y=110°	----	deg	I _F = 20 mA
x	Chromaticity Coordinates	Ranking Table Applies (see below)			----	I _F = 20 mA
y					----	I _F = 20 mA

Standard Bins (I_F = 20 mA)

Lamps are sorted to luminous intensity (I_V) and chromaticity coordinates (x, y) bins shown. Orders for OVSPWFCR6 may be filled with any or all bins contained as below.

Luminous Intensity (mcd)		AA	AB	AC	AD	BE	BF	BG	BH	BJ	BK	
	1000–1100											8
	930–1000											7
	860–930											6
Chromaticity Coordinates (x, y)												

Luminous Intensity is at 6 bin or above.

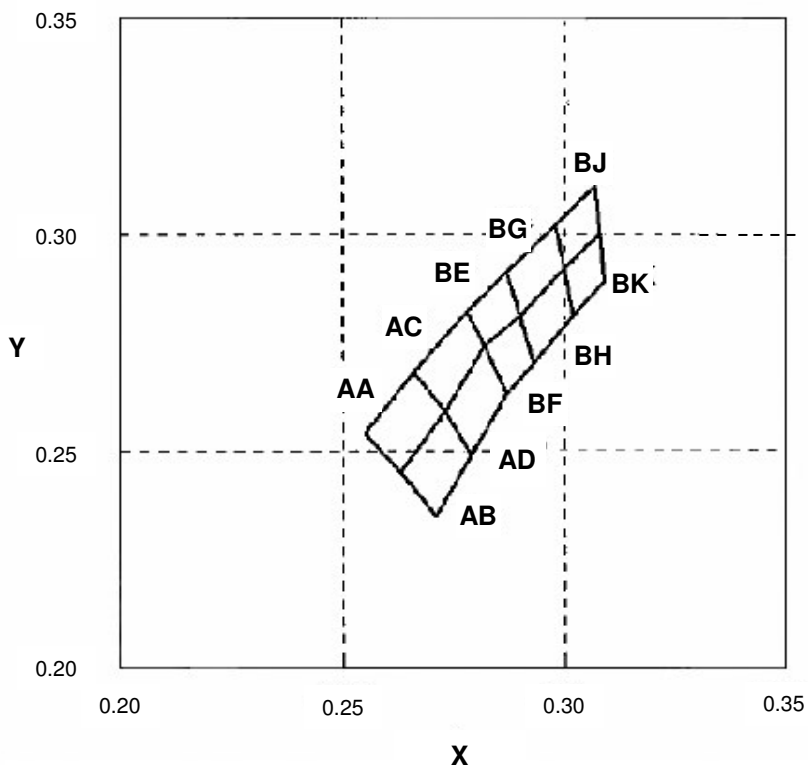
Rank		AA				AB				AC			
Chromaticity Coordinates	x	0.263	0.255	0.266	0.273	0.271	0.263	0.273	0.279	0.273	0.266	0.278	0.282
	y	0.245	0.254	0.268	0.259	0.235	0.245	0.259	0.249	0.259	0.268	0.282	0.274
Rank		AD				BE				BF			
Chromaticity Coordinates	x	0.279	0.273	0.282	0.287	0.278	0.287	0.290	0.282	0.282	0.290	0.293	0.287
	y	0.249	0.259	0.274	0.263	0.282	0.291	0.281	0.274	0.274	0.281	0.270	0.263
Rank		BG				BH				BJ			
Chromaticity Coordinates	x	0.287	0.298	0.300	0.290	0.290	0.300	0.302	0.293	0.300	0.298	0.307	0.308
	y	0.291	0.302	0.292	0.281	0.281	0.292	0.281	0.270	0.292	0.302	0.311	0.300
Rank		BK											
Chromaticity Coordinates	x	0.302	0.300	0.308	0.309								
	y	0.281	0.292	0.300	0.289								

Notes:

1. All ranks will be included per delivery, rank ratio will be based on the chip distribution.
2. Pb content <1000 PPM.
3. To designate luminous intensity ranks, please contact OPTEK.

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CIE Chromaticity Diagram

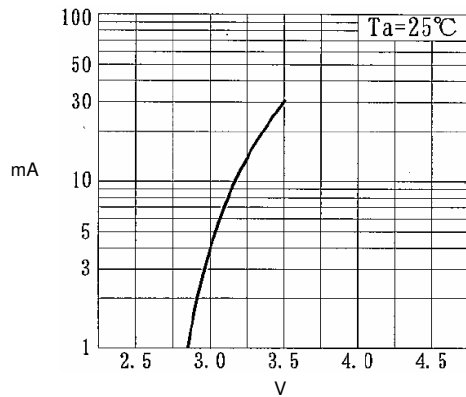


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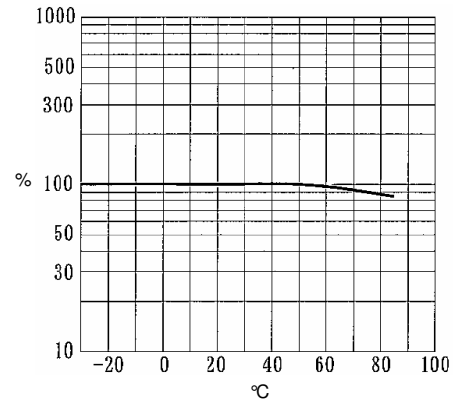
White Surface Mount LED Lamp

OVSRWACR6

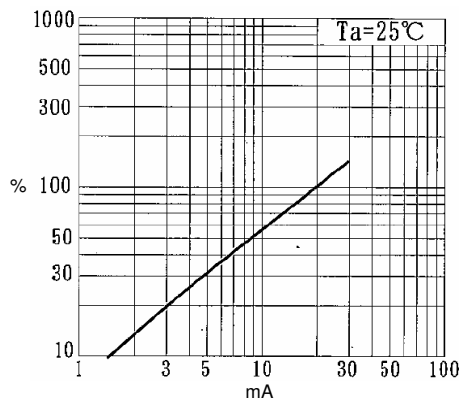
Typical Electro-Optical Characteristics Curves



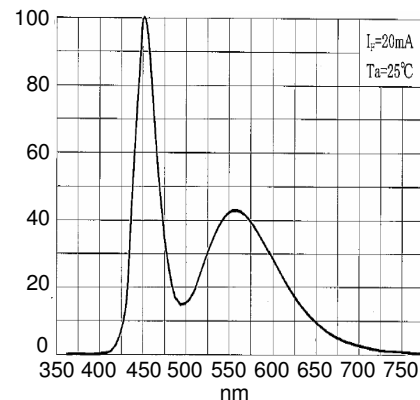
Forward Current vs Forward Voltage



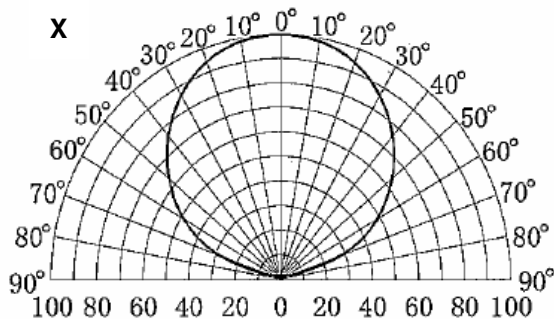
Relative Luminous Intensity vs Ambient Temperature



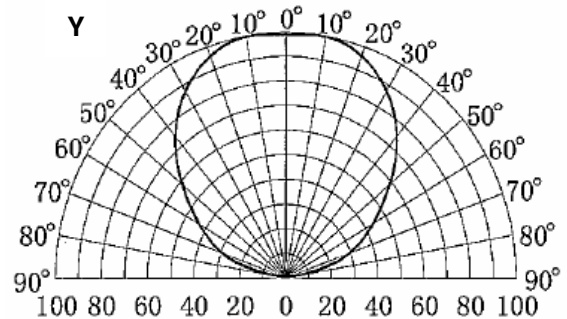
Relative Luminous Intensity vs Forward Current



Relative Emission Intensity



Relative Luminous Intensity



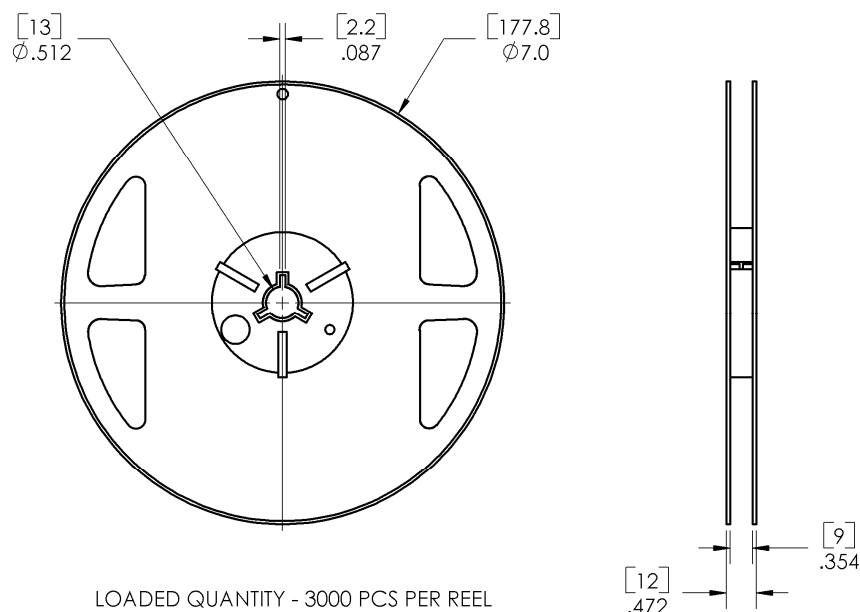
Relative Luminous Intensity

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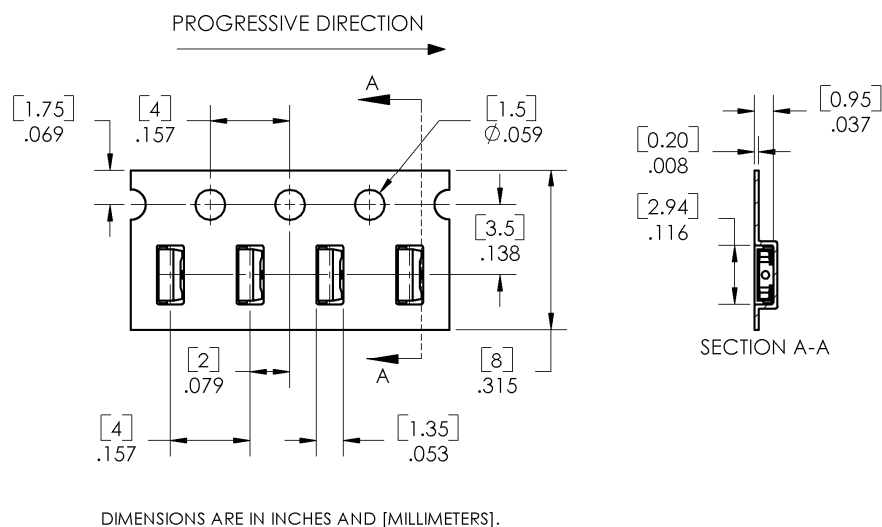
White Surface Mount LED Lamp

OVSRWACR6

Packing Information: 7-inch reel

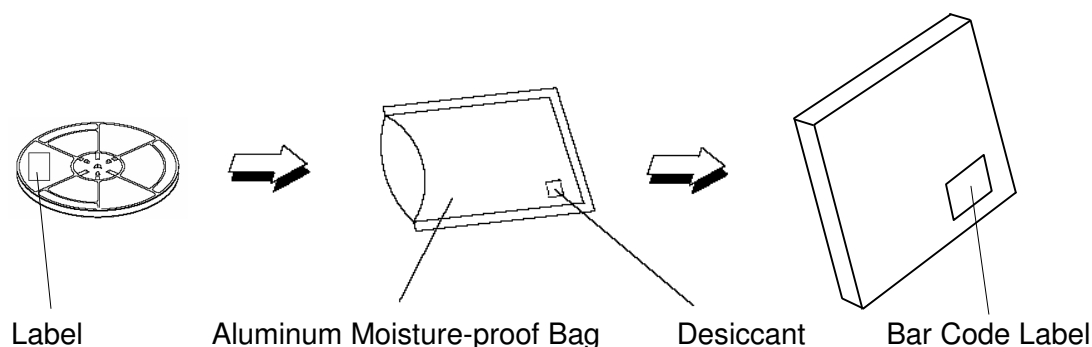


Carrier Tape Dimensions: Loaded quantity 3000 pieces per reel

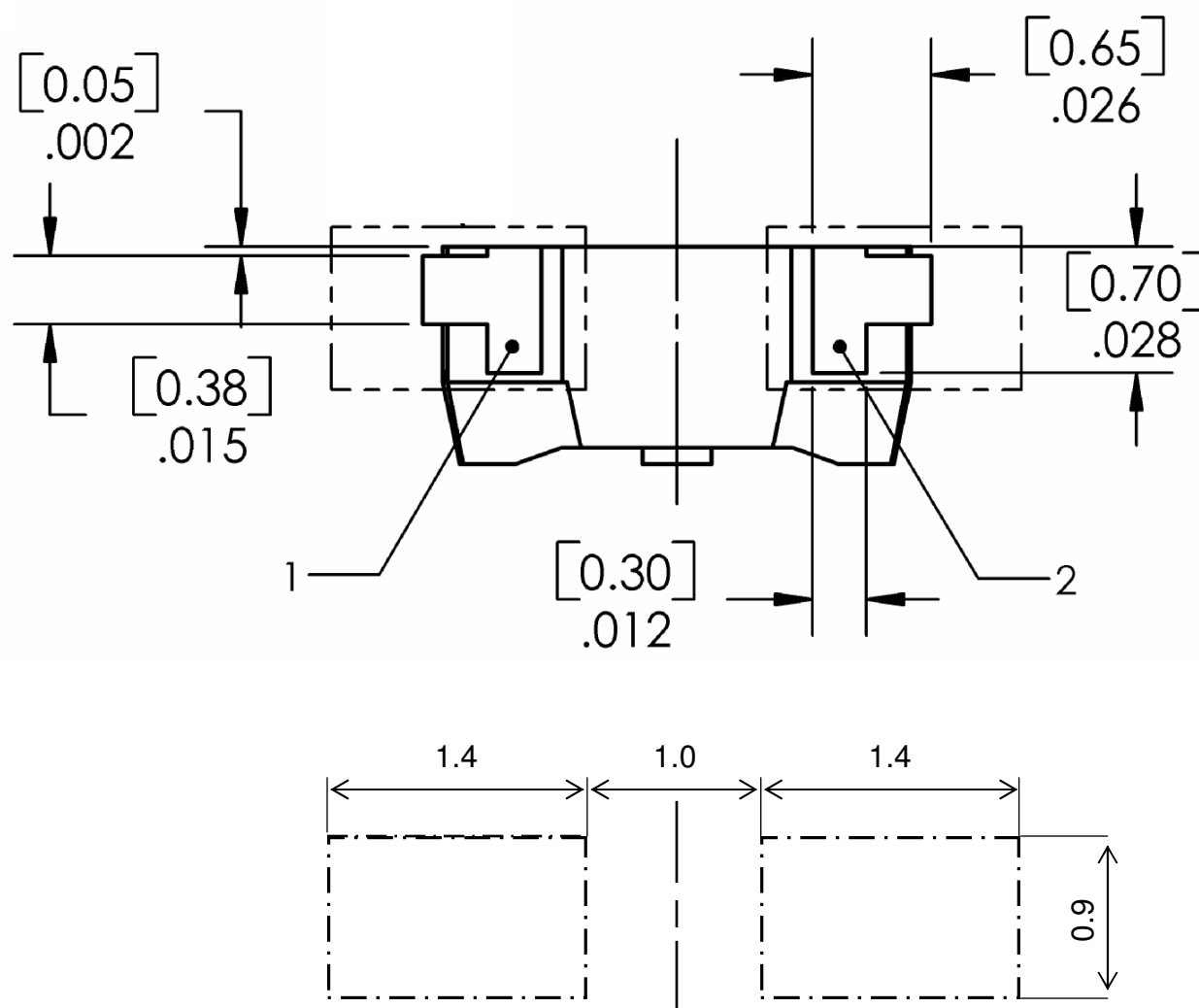


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Moisture Resistant Reel Packaging

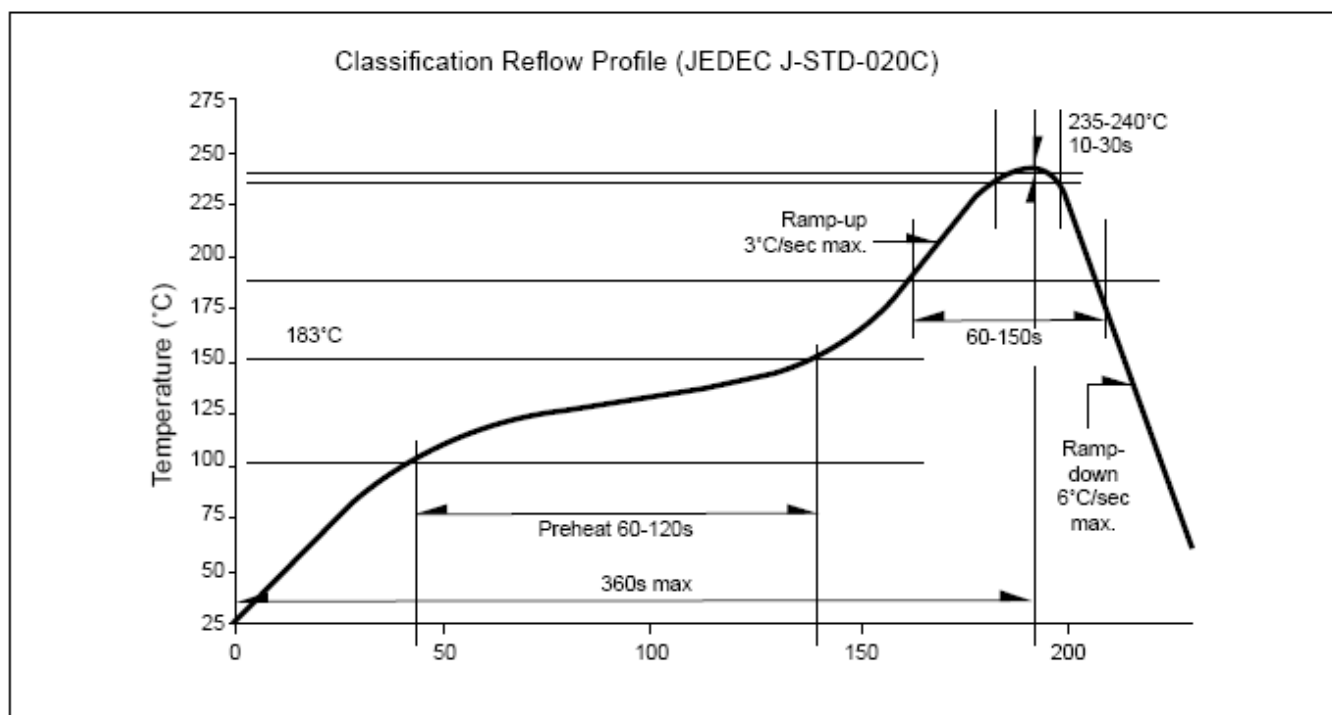


Recommended Soldering Pattern (Unit: mm)

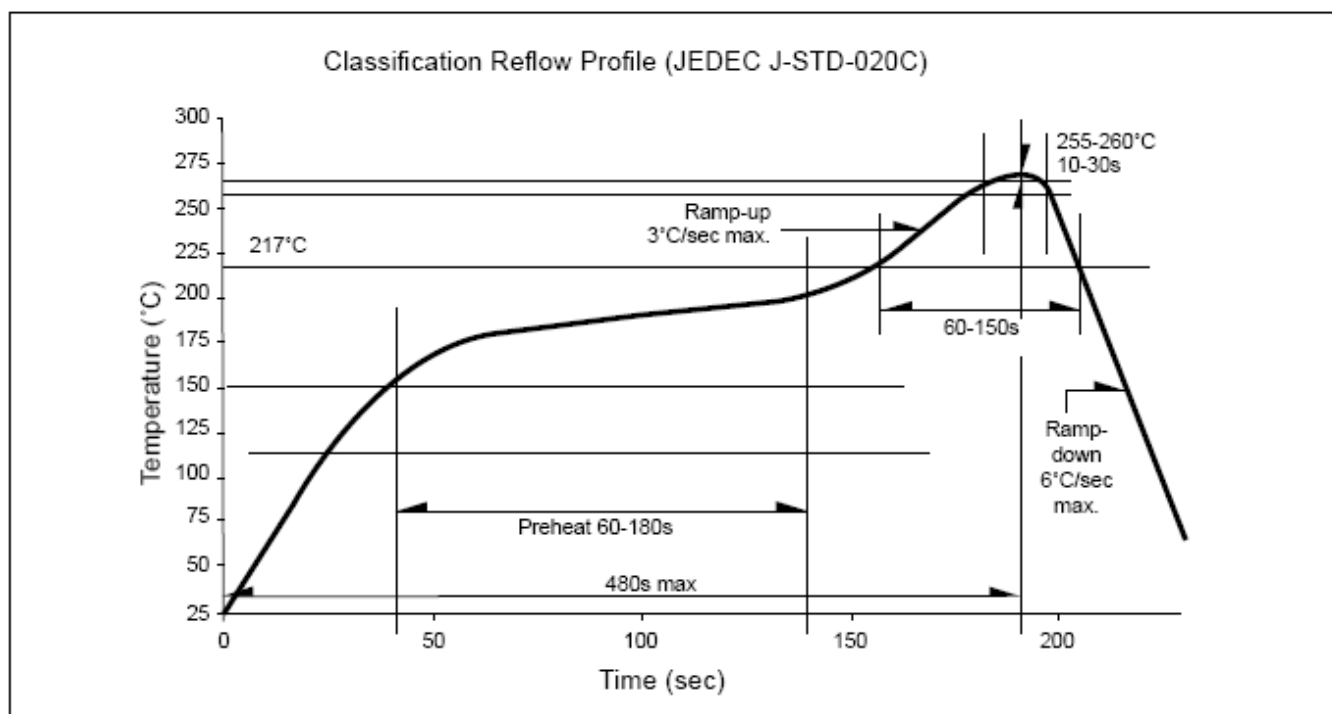


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Recommended Sn-Pb IR-Reflow Soldering Profile



Recommended Pb-free Soldering Profile



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