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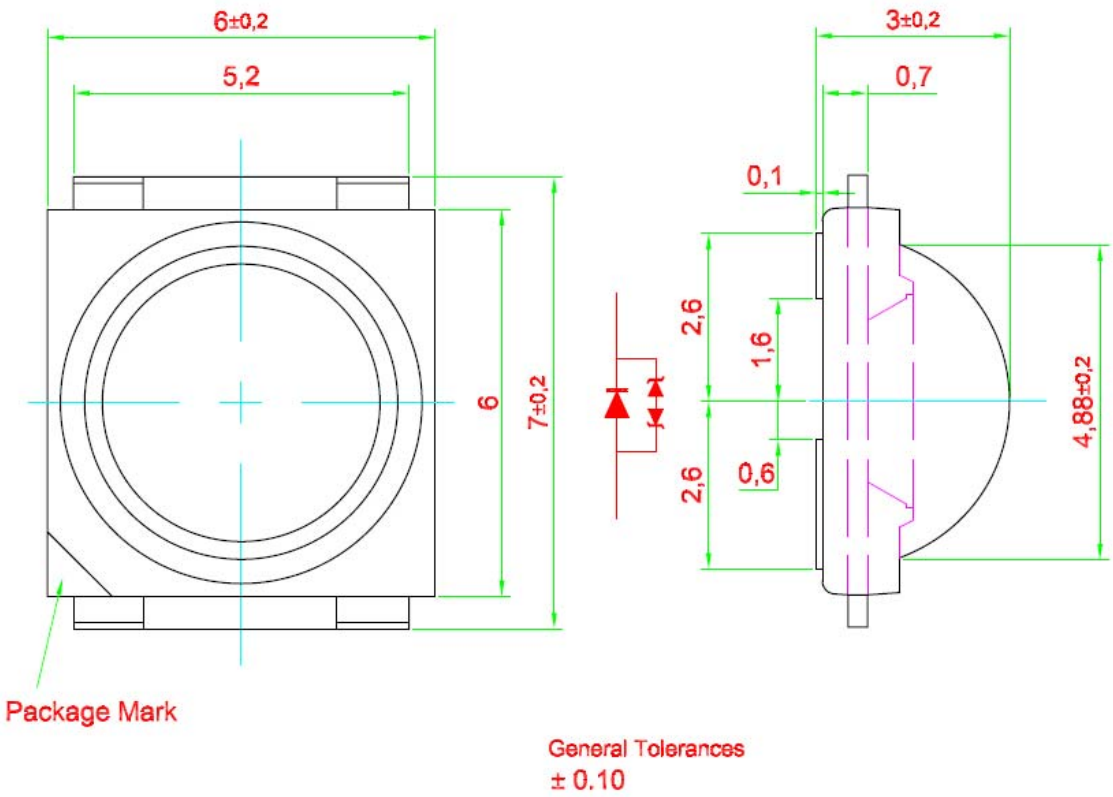
Super NovaLED 350 InGaN – NPW-RSZ



- Super high brightness surface mount LED.
- High flux output; 90 lumens typical.
- 135° viewing angle.
- Compact package outline (LxW) of 7.0 x 6.0 mm.
- Designed for high current drive; rated at 350 mA.
- Low thermal resistance; Rth $_{(js)}$ = 10 K/W.
- Compatible to IR reflow soldering.

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Material

	Material
Lead-frame.	Cu Alloy With Ag Plating.
Package.	High Temperature Resistant Plastic, PPA.
Encapsulant	Silicone Resin.
Soldering Leads.	Sn-Sn Plating.

Note: This product is Pb free.

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current.	350	mA
Peak pulse current	500	mA
Reverse voltage.	Not designed for reverse bias	V
LED junction temperature.	150	°C
Operating temperature.	-40 … +100	°C
Storage temperature.	-40 … +100	°C
ESD Threshold (HBM)	2000	V

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Optical Characteristics at Tj=25°C.

		Flux @ If=350mA (lm)			Viewing Angle
Part Number	Color	Min	Typ.	Max	
NPW-RSZ-TU-1	White		90.0		135

	Flux @ If = 350mA (lm)	
Bin	Min	Max
T2	67.2	76.5
T3	76.5	87.4
U2	87.4	99.4
U3	99.4	113.6

1. Luminous flux is measured with an accuracy of ±11%.
2. Luminous flux is measured with a 25 ms pulse.
3. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.

Electrical Characteristics at Tj=25°C.

		Vf @ If=350mA		
Part Number	Color	Min. (V)	Typ. (V)	Max. (V)
NPW-RSZ	White	3.0	3.5	4.0

Forward voltage, Vf is measured with a current pulse of 1 ms and an accuracy of ±0.1 V.

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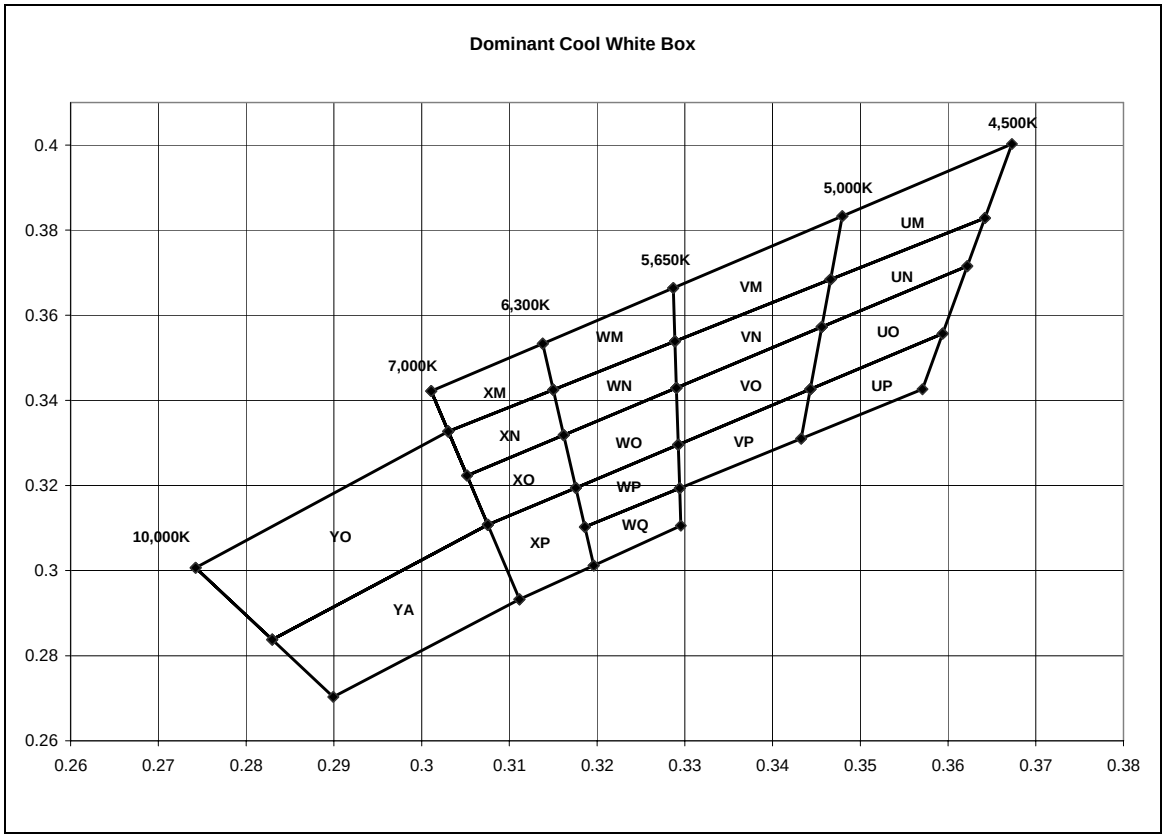
Color Bin



YO	0.276	0.300
	0.283	0.288
	0.303	0.330
	0.306	0.312
	0.294	0.310
YA	0.280	0.274
	0.285	0.284
	0.310	0.294
	0.307	0.308
	0.300	0.290

XM	0.303	0.342
	0.303	0.336
	0.313	0.350
	0.314	0.344
	0.310	0.342
XN	0.304	0.332
	0.305	0.323
	0.315	0.334
	0.314	0.340
	0.310	0.332
XO	0.308	0.314
	0.307	0.322
	0.316	0.330
	0.317	0.321
	0.312	0.322
XP	0.309	0.310
	0.312	0.296
	0.317	0.317
	0.308	0.302
	0.314	0.306

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WM	0.315	0.352
	0.316	0.346
	0.328	0.355
	0.328	0.364
	0.322	0.354
WN	0.316	0.342
	0.317	0.335
	0.328	0.344
	0.328	0.352
	0.322	0.342
WO	0.318	0.322
	0.318	0.330
	0.328	0.330
	0.328	0.340
	0.322	0.330
WP	0.319	0.314
	0.319	0.319
	0.328	0.322
	0.328	0.326
	0.324	0.320
WQ	0.320	0.304
	0.320	0.310
	0.328	0.312
	0.328	0.316
	0.324	0.310

VM	0.330	0.366
	0.330	0.356
	0.346	0.370
	0.347	0.380
	0.338	0.368
VN	0.330	0.346
	0.330	0.352
	0.344	0.358
	0.345	0.364
	0.338	0.356
VO	0.330	0.332
	0.330	0.342
	0.344	0.346
	0.344	0.354
	0.336	0.342
VP	0.330	0.322
	0.330	0.328
	0.342	0.332
	0.343	0.340
	0.336	0.330

UM	0.348	0.372
	0.348	0.380
	0.364	0.386
	0.366	0.398
	0.356	0.384
UN	0.347	0.361
	0.348	0.368
	0.362	0.374
	0.362	0.380
	0.354	0.370
UO	0.346	0.346
	0.346	0.354
	0.358	0.356
	0.360	0.368
	0.352	0.356
UP	0.344	0.334
	0.346	0.342
	0.356	0.344
	0.358	0.352
	0.350	0.342

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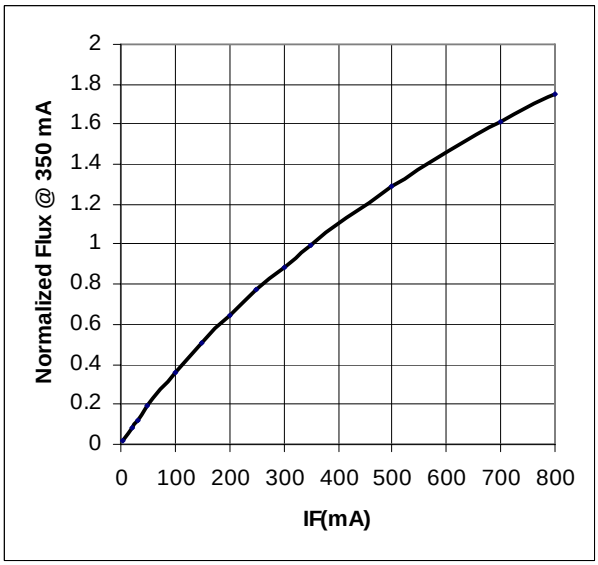
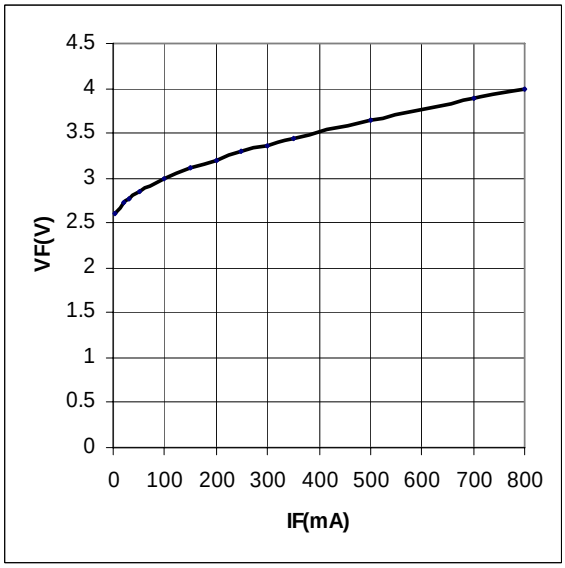
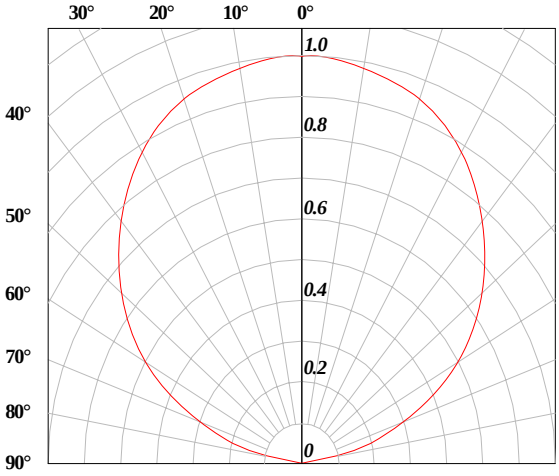
Relative flux vs. forward current.



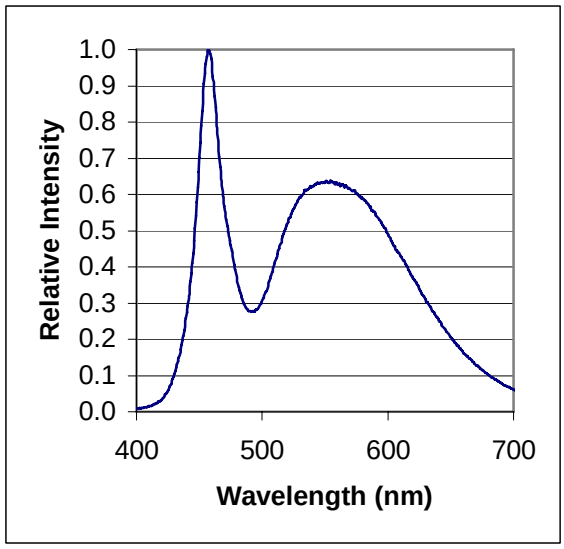
Forward current vs. forward voltage



Radiation pattern.



Relative Spectra Emission



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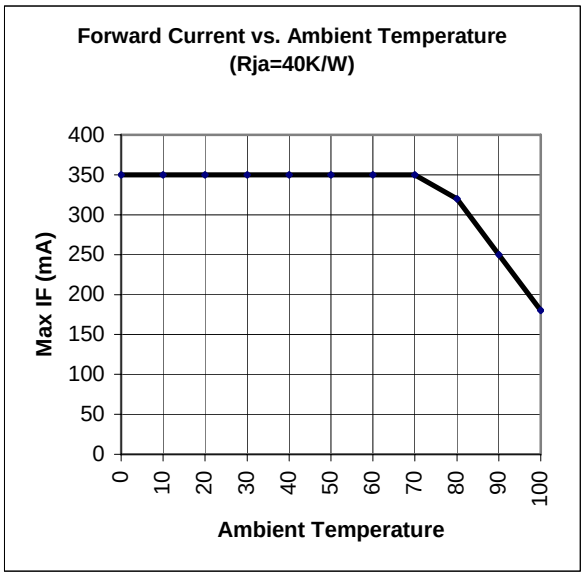
Maximum Permissible Current



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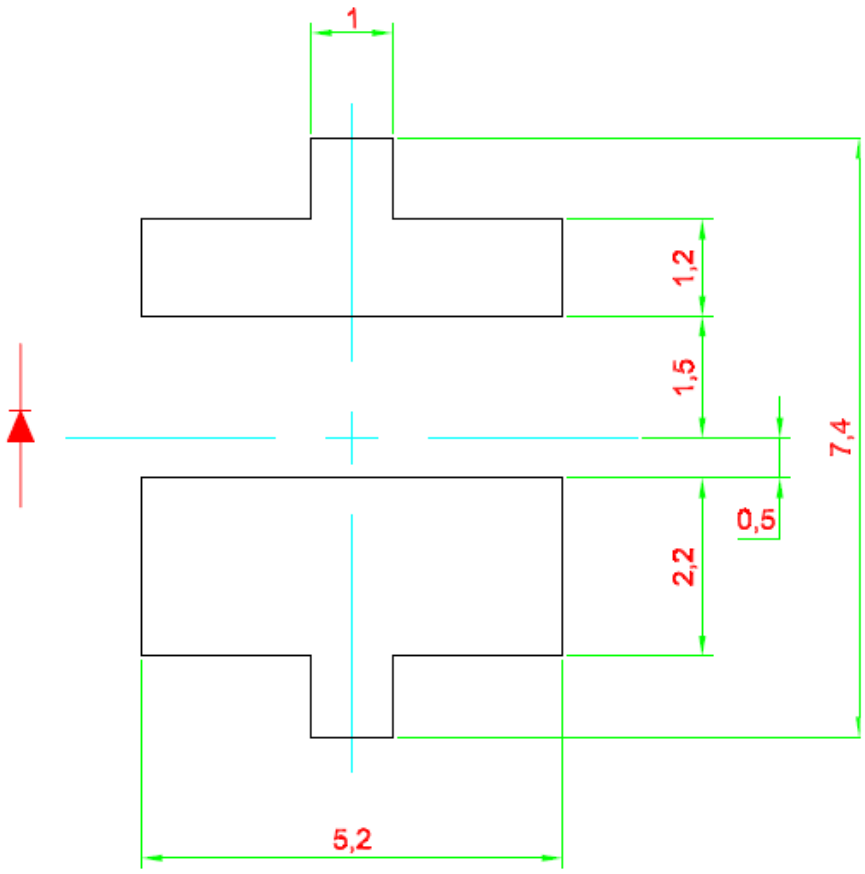
Solder Pad Design.



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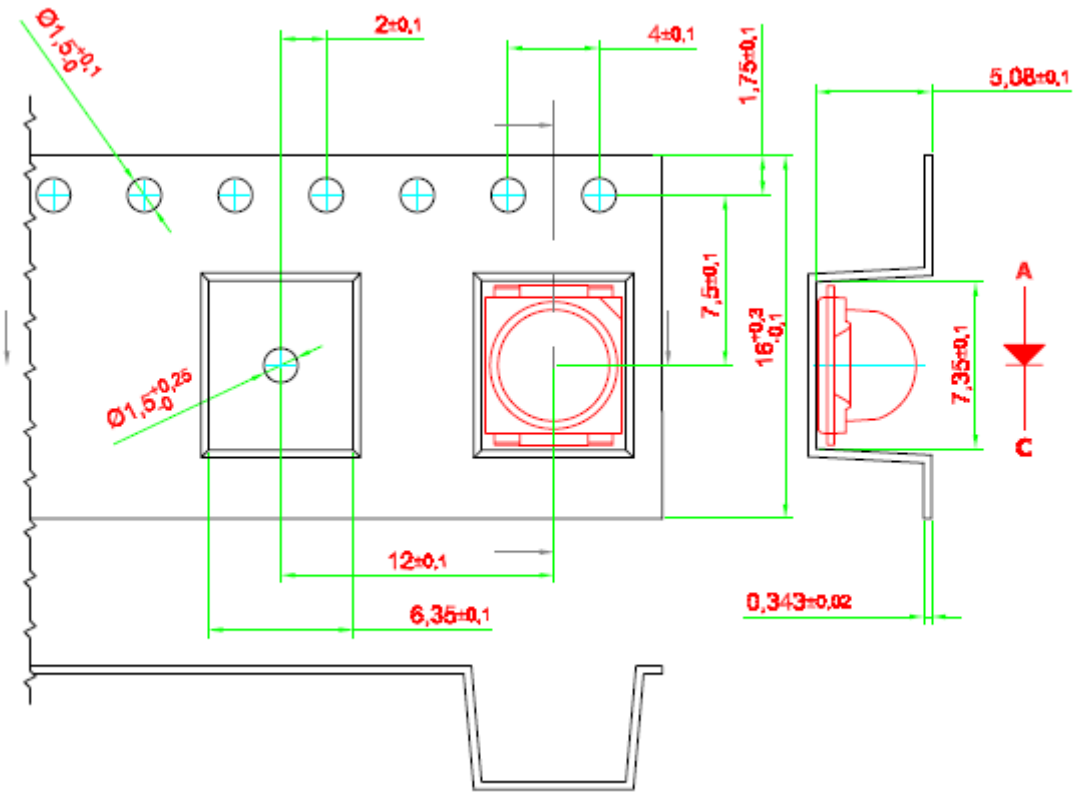
Taping And Orientation.

Reels come in quantity of 1000 units.

Reel diameters are 330 mm.



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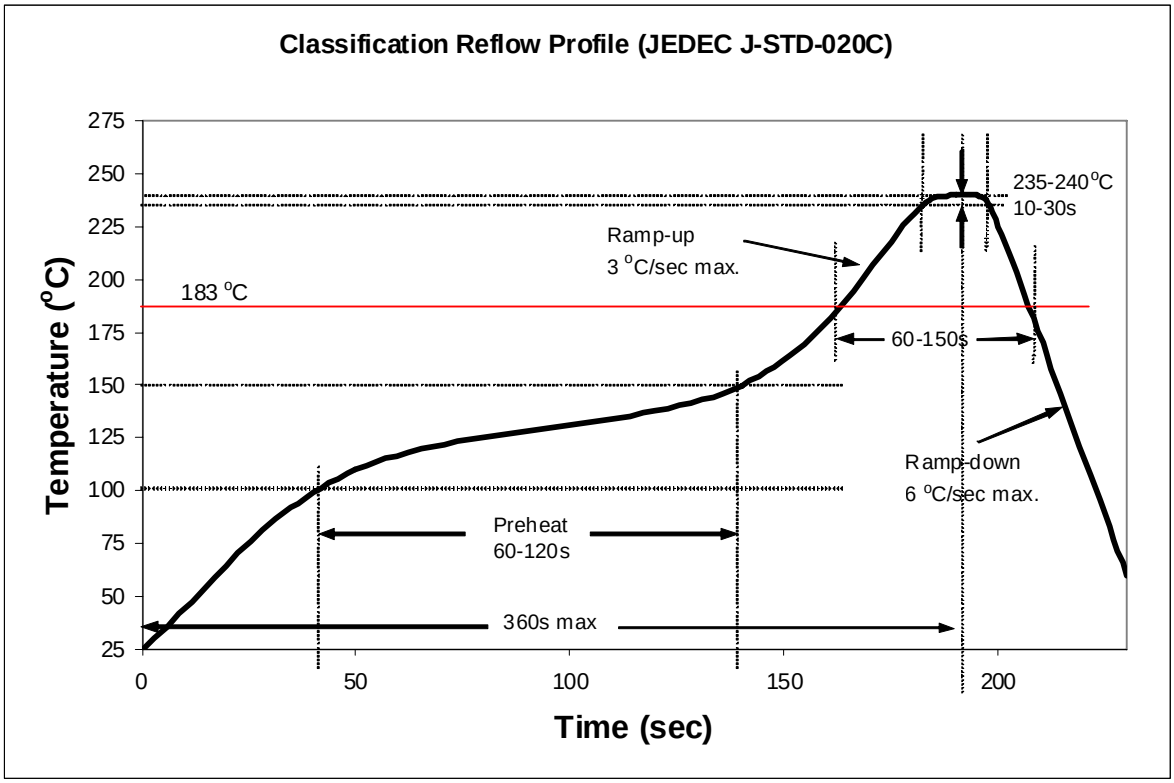
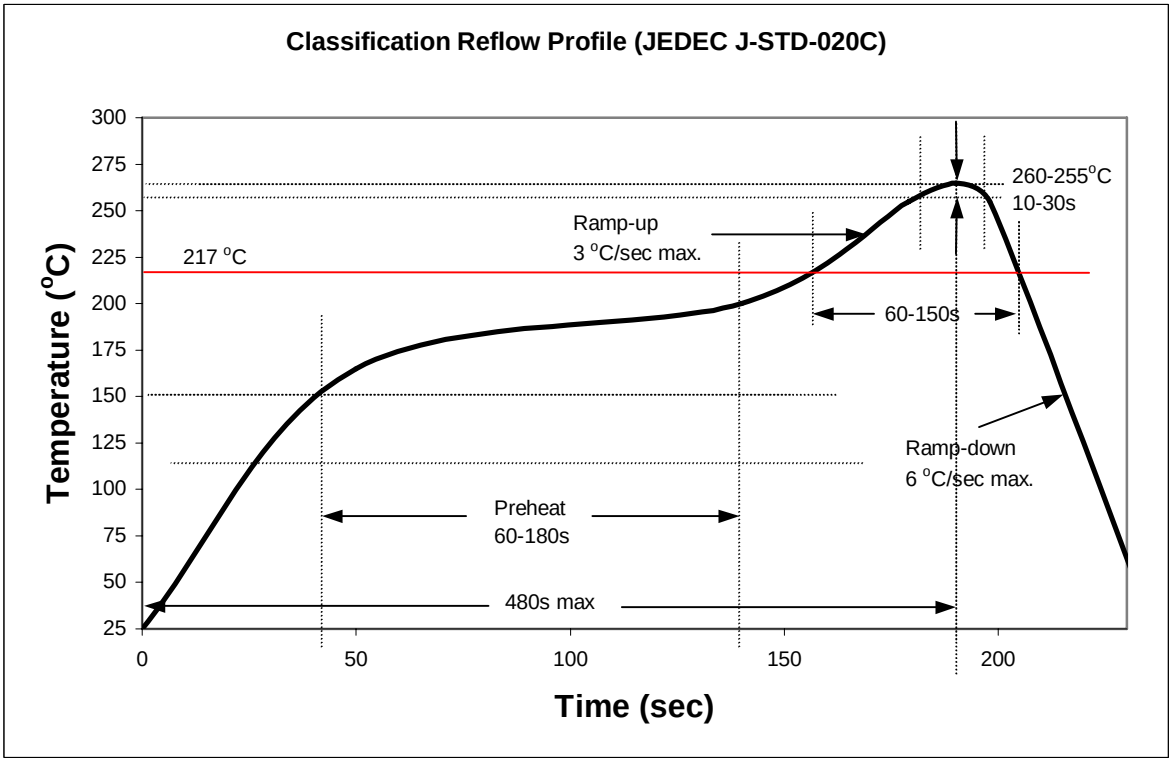
Recommended Sn-Pb IR-Reflow Soldering Profile.



Recommended Pb Free IR-Reflow Soldering Profile.



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