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SPECIFICATION FOR APPROVAL

CUSTOMER _____

CERTIFIED
MODEL/TYPE

PPL03102-P6B7

PART NO.

PPL03102NP6B7YKA(RoHS)

APPLICATION _____

CUSTOMER P/N _____

ISSUE DATE

Aug.27.2019

REV. NO. _____

REV. DATE _____

FOR CUSTOMER APPROVAL	CHECKED BY
	<i>Haili Gong</i>
	APPROVED BY
	<i>Huaifang Zhang</i>





REVISED RECORD SHEET

REV. NO	REV. DATE	REVISED CONTENT



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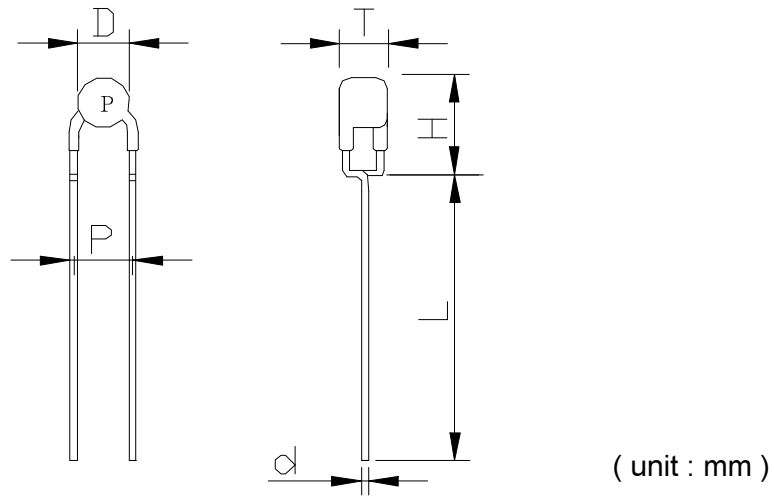
Part Number Code

Example :

PP **L** **03** **102** **N** **P6** **B7** **Y** **KA**
 (1) (2) (3) (4) (5) (6) (7) (8) (9)

No.	Item	Digit	Specification
(1)	Product Type	PP	Thinking overload protection PP type
(2)	Type Series	L	Lead type
(3)	Size	03	φ3 mm
(4)	Resistance(R ₂₅)	102	10*10 ² Ω=1000 Ω
(5)	Tolerance of R ₂₅	N	±30%
(6)	Curie Temperature	P6	60±10°C
(7)	Max. Voltage	B7	270V
(8)	Packaging	Y	RoHS compliance &Bulk
(9)	Optional Suffix	KA	Silicone Coating VR:220V

Structure and Dimensions



Item.	D	T	H	L	P	d
Max	5.0	5.0	8.5	---	6.0	0.52
Min	2	2.5	---	25.0	4.0	0.48

Electrical Characteristics

Part No.	Curie Temperature	Zero-power Resistance at 25+/-2°C	Rated Voltage	Max. Current
	Tc (°C)	R ₂₅ (Ω)	Vr (Vac)	I _{max} (A)
PPL03102NP6B7YKA	60±10	1000±30%	220	0.2

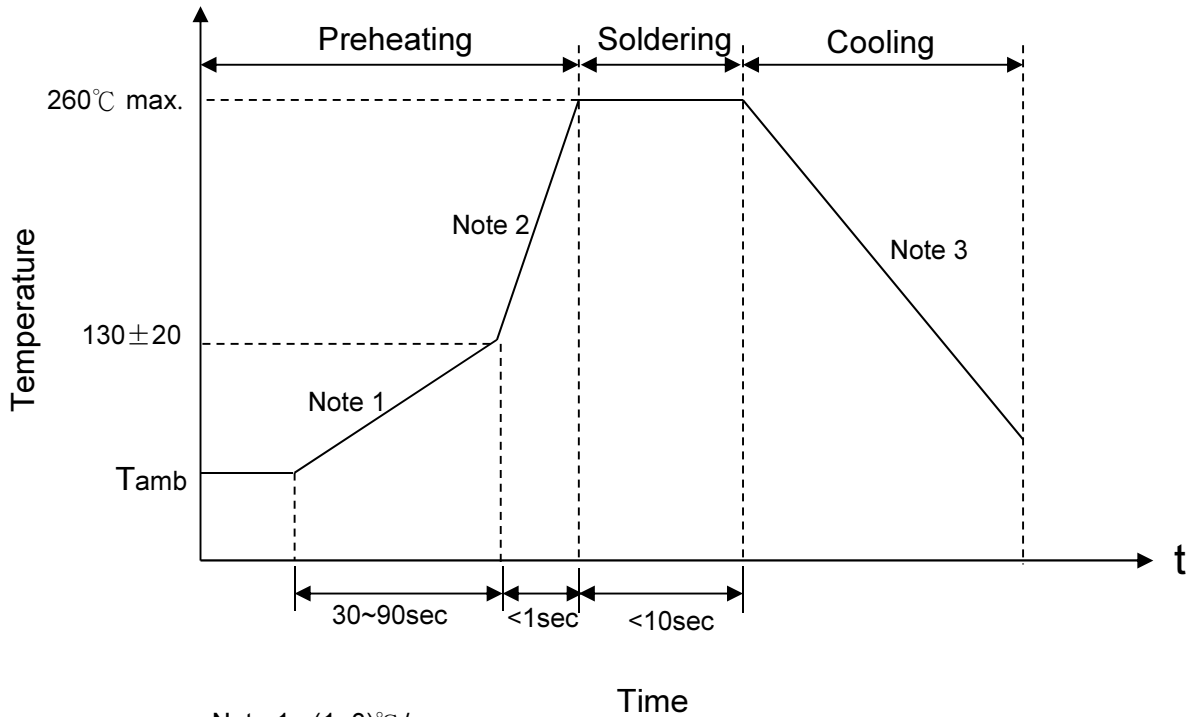
Part No.	Max. Voltage	Operating Temperature Range (V=Vmax)	Operating Temperature Range (V=0)
	Vmax (Vac)	(°C)	(°C)
PPL03102NP6B7YKA	270	0~60	-25~+125

Reliability

Item	Standard	Test conditions / Methods	Specifications															
Robustness of Terminations	IEC 60738-1	Gradually apply the specified force and keep the unit fixed for 10 ± 1 sec. <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; border-bottom: 1px solid black;">Terminal diameter (mm)</td> <td style="text-align: center; border-bottom: 1px solid black;">Force T(N)</td> </tr> <tr> <td style="text-align: center;">0.35 < d ≤ 0.5</td> <td style="text-align: center;">5.0</td> </tr> <tr> <td style="text-align: center;">0.5 < d ≤ 0.8</td> <td style="text-align: center;">10.0</td> </tr> <tr> <td style="text-align: center;">0.8 < d ≤ 1.25</td> <td style="text-align: center;">20.0</td> </tr> </table>	Terminal diameter (mm)	Force T(N)	0.35 < d ≤ 0.5	5.0	0.5 < d ≤ 0.8	10.0	0.8 < d ≤ 1.25	20.0	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage							
Terminal diameter (mm)	Force T(N)																	
0.35 < d ≤ 0.5	5.0																	
0.5 < d ≤ 0.8	10.0																	
0.8 < d ≤ 1.25	20.0																	
Solderability	IEC 60738-1	245 ± 3 °C , 2 ± 0.5 sec	At least 95% of terminal electrode is covered by new solder															
Resistance to Soldering Heat	IEC 60738-1	260 ± 3 °C , 10 ± 1 sec	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage															
Vibration	IEC 60738-1	Frequency range: 10~55Hz Amplitude: 0.75mm or 98m/S ² Direction: 3 mutually perpendicular directions Duration : 6HRS(3x2HRS)	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage															
Shock	IEC 60738-1	Wave: half-sine $\Delta V: 1.0$ m/s Acceleration: 50m/s ² Pulse time: 30ms	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage															
Rapid Change of Temperature	IEC 60738-1	The thermal shock conditions shown below shall be repeated 5 cycles <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Period(minutes)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">-40 ± 5</td> <td style="text-align: center;">30 ± 3</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">Room temperature</td> <td style="text-align: center;">5 ± 3</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">85 ± 5</td> <td style="text-align: center;">30 ± 3</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">Room temperature</td> <td style="text-align: center;">5 ± 3</td> </tr> </tbody> </table>	Step	Temperature(°C)	Period(minutes)	1	-40 ± 5	30 ± 3	2	Room temperature	5 ± 3	3	85 ± 5	30 ± 3	4	Room temperature	5 ± 3	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage
Step	Temperature(°C)	Period(minutes)																
1	-40 ± 5	30 ± 3																
2	Room temperature	5 ± 3																
3	85 ± 5	30 ± 3																
4	Room temperature	5 ± 3																
Climatic Sequence	IEC 60738-1	Dry heat: 125 °C for 16 hrs Damp heat first cycle: 40°C , 95% R.H , cycle time: 24 hrs Cold: -40°C for 2 hrs Damp heat (cyclic), remaining cycles: 5 cycles Test according to IEC60068-2-30	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage															
Damp Heat, Steady State	IEC 60738-1	40 ± 2 °C , 90~95%RH, 1000±2hrs	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage															
Endurance at Maximum Operating Temperature and Maximum Voltage	IEC 60738-1	UCT=60°C , VR, $I_t \leq I \leq I_{max}$, 1000±2hrs	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage															
Endurance at Maximum Voltage	IEC 60738-1	25 ± 5 °C , VR, $I_t \leq I \leq I_{max}$ 1min. on and 5min. Off × 100cycles	$ \Delta R_{25}/R_{25} \leq 20\%$ No visible damage															

Soldering Recommendation

■ Wave Soldering Profile



- Note 1 : (1~3)°C/sec
 Note 2 : Approx. 200°C/sec
 Note 3 : 5°C/sec Max

■ Recommended Reworking Conditions with Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	360°C (max.)
Soldering Time	3 sec (max.)
Distance from Thermistor	2 mm (min.)

RoHS Compliant Declaration

We hereby declare that the components delivered to your company are compliant with RoHS directive 2015/8635/EU.

Warehouse Storage Conditions of Products

(I) Storage Conditions :

- 1.Storage Temperature : $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- 2.Relative Humidity : $\leq 75\%RH$
- 3.Keep away from corrosive atmosphere and sunlight.

(II) Period of Storage : 1 year

Safety Approvals (Certified Model/Type :PPL03102-P6B7)



* TÜV recognized (File # R50426392)

Certificates

- (1) IATF 16949 certificate
- (2) ISO 9001 certificate

Test Report

- (1) RoHS test report