THINKING ELECTRONIC INDUSTRIAL CO., LTD.

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TEL:86-717-6510010 FAX:86-717-6511430

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
	Haili Gong
	APPROVED BY
	Huaifang Zhang

REVISED RECORD SHEET

REV. NO	REV. DATE	REVISED CONTENT

INDEX

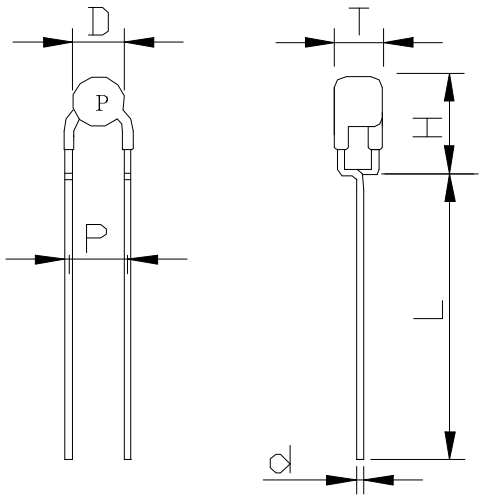
Part Number Code

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	$10*10^2\Omega$=1000 Ω
(5)	Tolerance of R_{25}	N	±30%
(6)	Curie Temperature	P6	60±10℃
(7)	Max. Voltage	B7	270V
(8)	Packaging	Y	RoHS compliance &Bulk
(9)	Optional Suffix	KA	Silicone Coating VR:220V

Structure and Dimensions



(unit : mm)

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℃	Rated Voltage	Max. Current
	Tc (℃)	R_{25} (Ω)	Vr (Vac)	Imax (A)
PPL03102NP6B7YKA	60±10	1000±30%	220	0.2

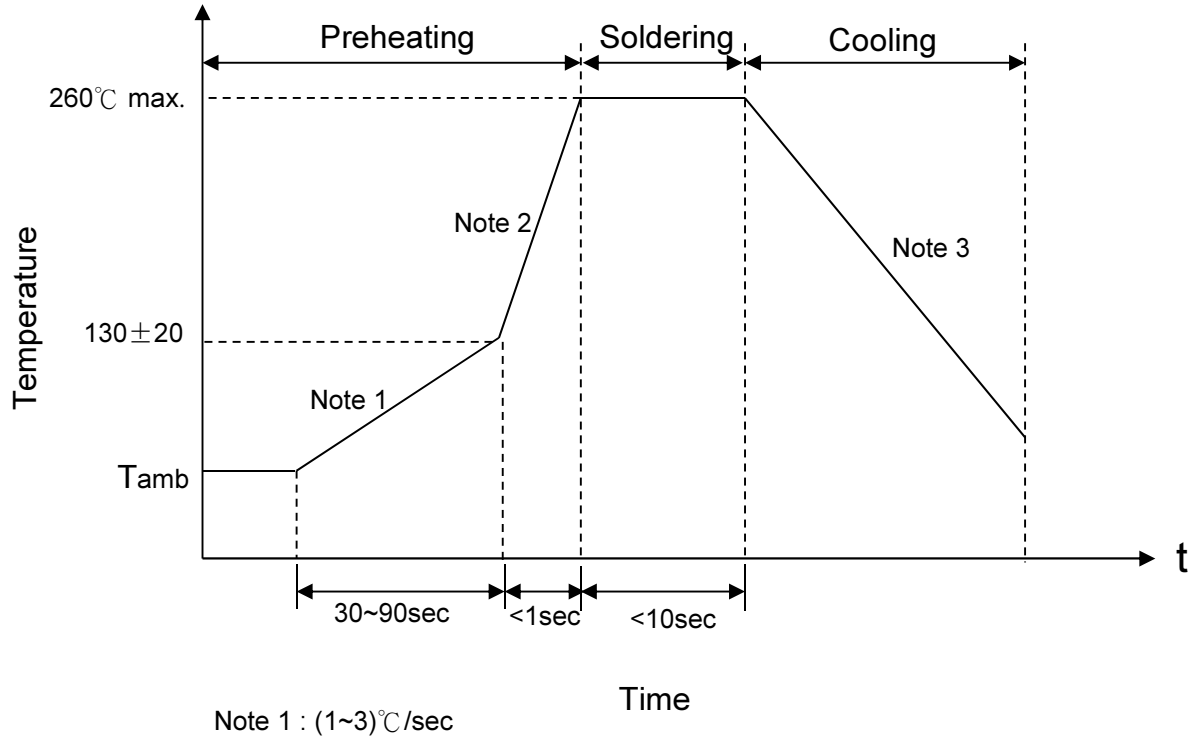
Part No.	Max. Voltage	Operating Temperature Range (V=Vmax)	Operating Temperature Range (V=0)
	Vmax (Vac)	(℃)	(℃)
PPL03102NP6B7YKA	270	0~60	-25~+125

Reliability

<table>
<tr><th>Item</th><th>Standard</th><th>Test conditions / Methods</th><th>Specifications</th></tr>
<tr><td>Robustness of Terminations</td><td>IEC 60738-1</td><td>Gradually apply the specified force and keep the unit fixed for10±1 sec.
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</td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
<tr><td>Solderability</td><td>IEC 60738-1</td><td>245 ± 3 ℃ , 2± 0.5 sec</td><td>At least 95% of terminal electrode is covered by new solder</td></tr>
<tr><td>Resistance to Soldering Heat</td><td>IEC 60738-1</td><td>260 ± 3 ℃ , 10 ± 1 sec</td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
<tr><td>Vibration</td><td>IEC 60738-1</td><td>Frequency range:10~55Hz
Amplitude:0.75mm or 98m/S^2
Direction:3 mutually perpendicular directions
Duration :6HRS(3x2HRS)</td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
<tr><td>Shock</td><td>IEC 60738-1</td><td>Wave:half-sine
⊿V:1.0m/s
Acceleration:50m/s^2
Pulse time:30ms</td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
<tr><td>Rapid Change of Temperature</td><td>IEC 60738-1</td><td>The thermal shock conditions shown below shall be repeated 5 cycles
<table>
<tr><th>Step</th><th>Temperature(℃)</th><th>Period(minutes)</th></tr>
<tr><td>1</td><td>-40 ± 5</td><td>30 ± 3</td></tr>
<tr><td>2</td><td>Room temperature</td><td>5 ± 3</td></tr>
<tr><td>3</td><td>85 ± 5</td><td>30 ± 3</td></tr>
<tr><td>4</td><td>Room temperature</td><td>5 ± 3</td></tr>
</table></td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
<tr><td>Climatic Sequence</td><td>IEC 60738-1</td><td>Dry heat: 125 ℃ for 16 hrs
Damp heat first cycle: 40℃, 95% R.H ,cycle time: 24 hrs
Cold: -40℃ for 2 hrs
Damp heat (cyclic), remaining cycles: 5 cycles
Test according to IEC60068-2-30</td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
<tr><td>Damp Heat, Steady State</td><td>IEC 60738-1</td><td>40±2℃,90~95%RH,1000±2hrs</td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
<tr><td>Endurance at Maximum Operating Temperature and Maximum Voltage</td><td>IEC 60738-1</td><td>UCT=60℃, VR, It≦I≦Imax , 1000±2hrs</td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
<tr><td>Endurance at Maximum Voltage</td><td>IEC 60738-1</td><td>25±5℃, VR, It ≦ I ≦ Imax
1min. on and 5min. Off ×100cycles</td><td>| △R_{25}/R_{25} | ≦20%
No visible damage</td></tr>
</table>

Soldering Recommendation

Wave Soldering Profile



Note 1 : (1~3)℃/sec
Note 2 : Approx. 200℃/sec
Note 3 : 5℃/sec Max

Recommended Reworking Conditions with Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	360℃ (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℃~+40℃

2.Relative Humidity : ≦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

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Click to view products by TKS ***manufacturer:***

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PTCAUX7-36-5C PTCCL09H251FBE PTCTL3MR100GTE B59346A1502P020 B59860C 130A 70 B59980C0160A070 PTCTT95R100GTE PTCLL05P131TBE B59841C0135A070 TFPT0805L1800FV B59725T1120A062 B59116S0225B010 B59008C0150A040 B59100M1090A070 B59100M1145A070 B59873C0120A070 102PS1G B59300M1150A070 B59339A1501P020 B59770B0120A070 B59955C0120A070 B59995C0120A070 YQR100R060 YQS5751PTO YQS5856PTF YQS5930PTO YS5675 YS5918PTO YS5677 YQS5898PTO YQS5868PTF YQD100N1000 KTY82/222,215 KTY81/110,112 KTY81/210,112 B59219J130A20 B59771B0120A070 B59807A90A62 B59005Z999A99 B59641A0135A062 B59960C160A70 PTGL10ARR27M1B51A0 P5005C090S500H YQD120N0025 PTGL12AS4R7K6B51B0 PTGL12AR100M6C01B0 PTGL07AS2R7K2B51A0 PTGL07AS1R8K2B51B0 PTGL13AR0R8H2B71B0 PTGL12AR1R2H2B51B0