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## SPECIFICATION FOR APPROVAL

CUSTOMER \_\_\_\_\_

CERTIFIED  
MODEL/TYPE

\_\_\_\_\_

PPL07100MA0B5

PART NO.

\_\_\_\_\_

PPL07100MA0B5YFS(RoHS)

APPLICATION \_\_\_\_\_

CUSTOMER P/N \_\_\_\_\_

ISSUE DATE

\_\_\_\_\_

Mar.16.2019

REV. NO. \_\_\_\_\_

REV. DATE \_\_\_\_\_

FOR CUSTOMER APPROVAL	CHECKED BY
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	APPROVED BY
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**REVISED RECORD SHEET**

REV. NO	REV. DATE	REVISED CONTENT



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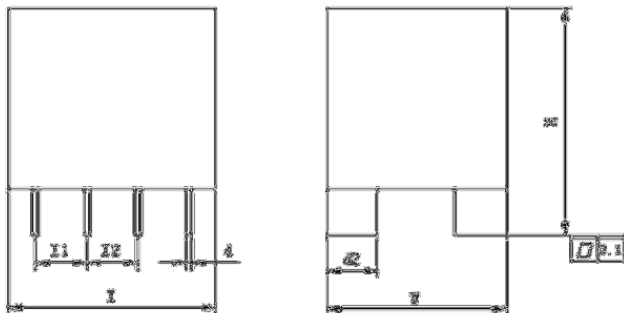
Part Number Code

Example :

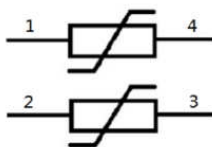
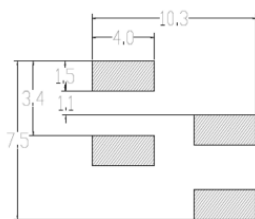
**PP**    **L**    **07**    **100**    **M**    **A0**    **B5**    **Y**    **FS**  
 (1)    (2)    (3)    (4)    (5)    (6)    (7)    (8)    (9)

No.	Item	Digit	Specification
(1)	Product Type	PP	Thinking overload protection PP type
(2)	Type Series	L	Lead type
(3)	Size	07	φ7 mm
(4)	Resistance(R <sub>25</sub> )	100	10×10 <sup>0</sup> =10Ω
(5)	Tolerance of R <sub>25</sub>	M	±20%
(6)	Curie Temperature	A0	100°C (Typ.)
(7)	Max. Voltage	B5	250V
(8)	Packaging	Y	RoHS compliance & Bulk
(9)	Optional Suffix	FS	Vmax:250Vac I <sub>max</sub> :3A

Structure and Dimensions



Item	Hmax	lmax	Wmax	l1	l2	d	d2
mm	7.5	7.5	10.3	2.5 typ	0.95 typ	0.15 typ	2.6 typ



Solder Pad

Electrical Characteristics

( unit : mm )

Part No.	Zero-power Resistance at 25±2°C	ΔR25 Resistance match	Max. Current	Max. Voltage	Responding Time at Vr,1A	Non-operating Current at -40±2°C	Trip Current at -40±2°C	Non-operating Current at -20±2°C
	R <sub>25</sub> (Ω)	R1-R2   (Ω)	I <sub>max</sub> (A)	V <sub>max</sub> (Vac)	t <sub>s</sub> (s)	I <sub>n</sub> (mA)	I <sub>t</sub> (mA)	I <sub>n</sub> (mA)
PPL07100MA0B5YFS	10±20%	≦ 1	3	250	≦ 4	221	510	197

Part No.	Trip Current at -20±2°C	Non-operating Current at 0°C	Trip Current at 0°C	Non-operating Current at 25±2°C	Trip Current at 25±2°C	Non-operating Current at 40±2°C	Trip Current at 40±2°C	Non-operating Current at 50±2°C
	I <sub>t</sub> (mA)	I <sub>n</sub> (mA)	I <sub>t</sub> (mA)	I <sub>n</sub> (mA)	I <sub>t</sub> (mA)	I <sub>n</sub> (mA)	I <sub>t</sub> (mA)	I <sub>n</sub> (mA)
PPL07100MA0B5YFS	455	165	381	130	300	106	245	89

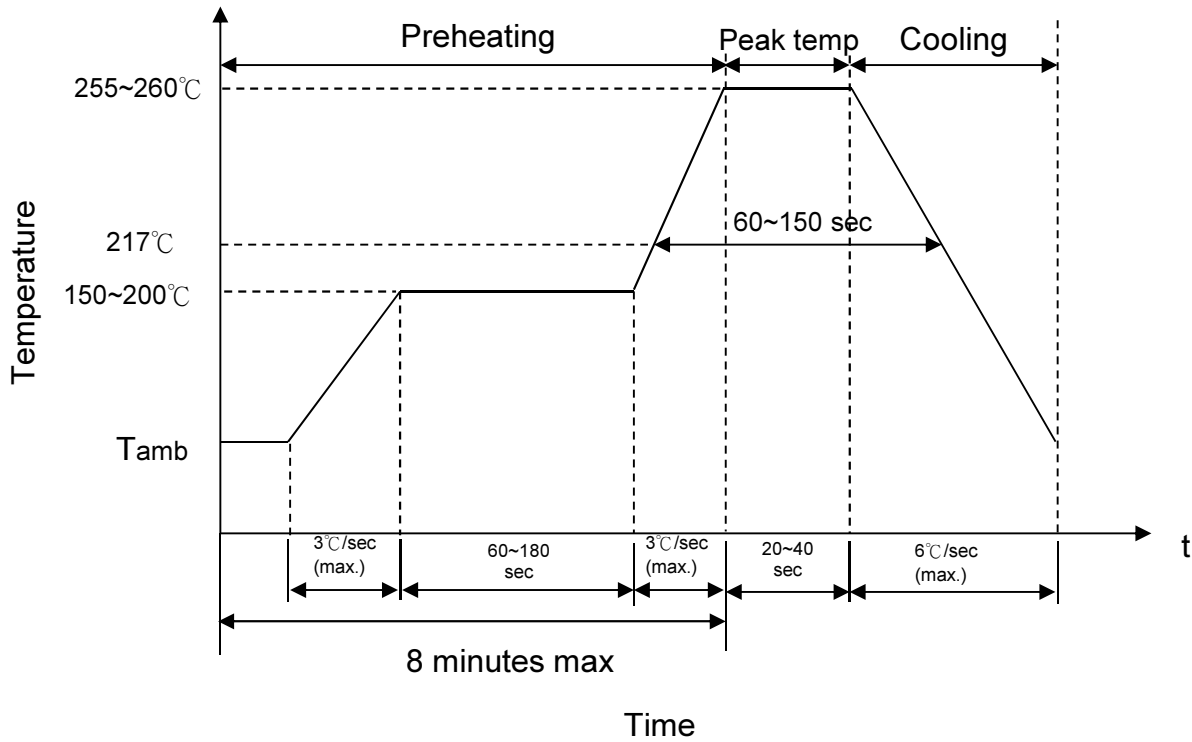
Part No.	Trip Current at 50±2°C	Non-operating Current at 60±2°C	Trip Current at 60±2°C	Non-operating Current at 70±2°C	Trip Current at 70±2°C	Non-operating Current at 85±2°C	Trip Current at 85±2°C	Operating Temperature Range (V=V <sub>max</sub> )	Operating Temperature Range (V=0)
	I <sub>t</sub> (mA)	I <sub>n</sub> (mA)	I <sub>t</sub> (mA)	I <sub>n</sub> (mA)	I <sub>t</sub> (mA)	I <sub>n</sub> (mA)	I <sub>t</sub> (mA)	(°C)	(°C)
PPL07100MA0B5YFS	205	81	187	65	150	44	101	0 ~ +60	-25 ~ +125

Reliability

Item	Standard	Test conditions / Methods	Specifications															
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	$\Delta R_{25}/R_{25}$   ≤ 20% No visible damage															
Vibration	IEC 60738-1	Frequency range: 10~55Hz Amplitude: 0.75mm or 98m/S <sup>2</sup> Direction: 3 mutually perpendicular directions Duration : 6HRS(3x2HRS)	$\Delta R_{25}/R_{25}$   ≤ 20% No visible damage															
Shock	IEC 60738-1	Wave: half-sine ΔV: 1.0m/s Acceleration: 50 m/s <sup>2</sup> Pulse time: 30ms	$\Delta R_{25}/R_{25}$   ≤ 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="margin-left: 20px;"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Period(minutes)</th> </tr> </thead> <tbody> <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> </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	$\Delta R_{25}/R_{25}$   ≤ 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	$\Delta R_{25}/R_{25}$   ≤ 20% No visible damage															
Damp Heat, Steady State	IEC 60738-1	40±2°C, 90~95%RH, for 1000±2hrs	$\Delta R_{25}/R_{25}$   ≤ 20% No visible damage															
Lightning	specification standard	10/700 us , 6Kv , Rs=40Ω ; 10 times , with GDT ( 500V trip )	R-R0   /R0≤30%															
Power Cross	specification standard	220V , Rs=10/200/600Ω , 15min on , 5min off , 3 times respectively	R-R0   /R0≤30%															
Power Induction	specification standard	650V , Rs=600Ω , 1S on , 300S off , 15 times	R-R0   /R0≤30%															

## Soldering Recommendation

### ■ IR-Reflow Soldering Profile



### ■ 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 2015/863/EU.

### Warehouse Storage Conditions of Products

(I) Storage Conditions :

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

(II) Period of Storage : 1 year



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Safety Approvals (Certified Model/Type :PPL07100MA0B5)



\* UL 1434 / cUL recognized (File # E138827)



\* TUV recognized (File # R50171789)

Certificates

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

Test Report

- (1) RoHS test report