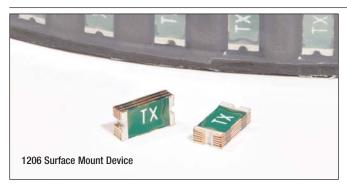


6-60 Volt DC Surface Mount, Resettable PPTC Devices PolyTron™ PTS1206 Series









Description

- · Resettable surface mount fuse
- 6 to 60 volts
- Current ratings from 0.05 to 2.0 amps
- Fast time-to-trip
- Low resistance
- · Halogen free
- Lead free
- RoHS compliant

Agency Information

- cURus: Recognized Card: File E343021 (Ihold 0.05-2.0A)
- TUV File: R 50192872

Part Number System/Ordering

	PT	<u>Ş</u>	<u>1206</u>	<u>6V</u>	<u>110</u>
PolyTron™ Resettable Fuse Series —					
Surface Mount Fuse —————					
Dimension Code ——————					
Maximum Voltage —————					
Current Holding (Ibold)					

Tape and Reel Packaging/Quantities

- PTS120630V012, PTS120630V016, PTS120624V020, PTS120616V025, PTS120616V035, PTS12066V050, PTS12066V075 - 5000 fuses per reel
- All others 2500 fuses per reel

Applications

- Medical equipment
- · White goods
- Telecommunications
- Computers and peripherals
- Rechargeable battery packs

Specifications											
Catalog	V _{max}	I _{max}	I _{hold} @23°C	I _{trip} @23°C	Pd Typ.	Time to Tr	Resistance (Ω) Time to Trip (Max.) Initial (R _i) Post Trip (R		ance (Ω) Post Trip (R ₁)	Agency Information	
Number	(Vdc)	(Amps)	(Amps)	(Amps)	(W)	(Amps)	(Sec)	Min.	Max.	cURus	TUV
PTS120660V005	60	100	0.05	0.15	0.4	0.25	1.5	3.6	50	X	Χ
PTS120660V010	60	100	0.10	0.25	0.4	0.50	1.0	1.6	15	X	Χ
PTS120630V012	30	100	0.12	0.29	0.5	1.00	0.2	1.4	6	X	Χ
PTS120630V016	30	100	0.16	0.37	0.5	1.00	0.3	1.1	4.5	X	Χ
PTS120624V020	24	100	0.20	0.42	0.6	8.00	0.1	0.65	2.6	X	Χ
PTS120616V025	16	100	0.25	0.50	0.6	8.00	0.08	0.55	2.3	X	Χ
PTS120616V035	16	100	0.35	0.75	0.6	8.00	0.1	0.3	1.2	Х	Χ
PTS12066V050	6	100	0.50	1.00	0.6	8.00	0.1	0.15	0.7	X	Χ
PTS120615V050	15	100	0.50	1.00	0.6	8.00	0.1	0.15	0.7	Х	Χ
PTS12066V075	6	100	0.75	1.50	0.6	8.00	0.2	0.1	0.29	X	Χ
PTS12066V100	6	100	1.00	1.80	0.8	8.00	0.3	0.065	0.21	X	Χ
PTS12066V110	6	100	1.10	2.20	0.8	8.00	0.3	0.07	0.2	X	Χ
PTS12066V150	6	100	1.50	3.00	0.8	8.00	1.0	0.04	0.12	Х	Χ
PTS12066V200	6	100	2.00	3.50	1.0	8.00	1.5	0.02	0.08	Х	Χ

Notes:

 $I_{\mbox{hold}} - \mbox{Hold current: Maximum current device will pass without interruption in 23 ^{\circ} \mbox{C still air.}}$

trip - Trip current: Minimum current that will switch the device from low resistance to high resistance in 23°C still air.

V_{max}: Maximum continuous voltage device can withstand without damage at rated current.

 I_{max} . Maximum fault current device can withstand without damage at rated voltage. P_{d} : Power dissipated from device when in the tripped state in 23°C still air.

 R_i (min.): Minimum resistance of device as supplied at 23°C unless otherwise specified. R_i (max.): Maximum resistance of device as supplied at 23°C unless otherwise specified.

R₁(max.): Maximum resistance of device when measured one hour post reflow (SMD) or one hour post trip (radial-leaded device) at 23C unless otherwise specified.

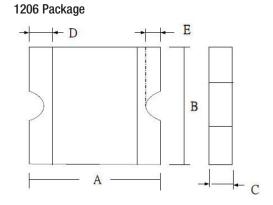
0111 BU-SB11016 Page 1 of 4



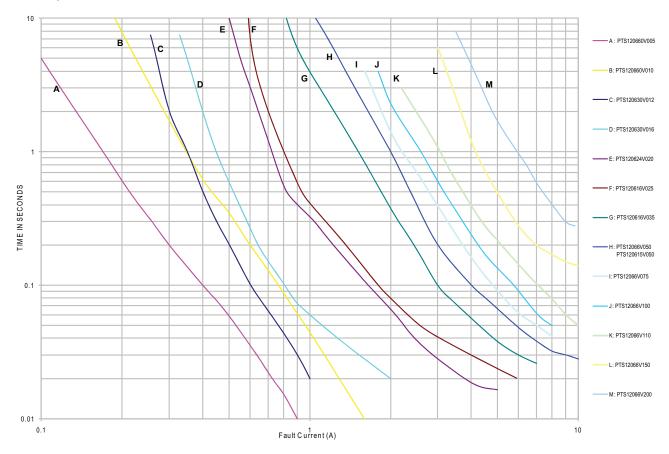
Data Sheet 4397

Dimensions - mm

	1	4	В		(С		[
Part Number	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.	Max.
PTS120660V005	3.00	3.50	1.50	1.80	0.50	0.90	0.125	0.08	0.45
PTS120660V010	3.00	3.50	1.50	1.80	0.50	0.90	0.125	0.08	0.45
PTS120630V012	3.00	3.50	1.50	1.80	0.35	0.90	0.125	0.08	0.45
PTS120630V016	3.00	3.50	1.50	1.80	0.28	0.68	0.125	0.08	0.45
PTS120624V020	3.00	3.50	1.50	1.80	0.28	0.68	0.125	0.08	0.45
PTS120616V025	3.00	3.50	1.50	1.80	0.28	0.68	0.125	0.08	0.45
PTS120616V035	3.00	3.50	1.50	1.80	0.28	0.68	0.125	0.08	0.45
PTS12066V050	3.00	3.50	1.50	1.80	0.28	0.68	0.125	0.08	0.45
PTS120615V050	3.00	3.50	1.50	1.80	0.28	1.06	0.125	0.08	0.45
PTS12066V075	3.00	3.50	1.50	1.80	0.28	0.85	0.125	0.08	0.45
PTS12066V100	3.00	3.50	1.50	1.80	0.40	0.88	0.125	0.08	0.45
PTS12066V110	3.00	3.50	1.50	1.80	0.40	0.88	0.125	0.08	0.45
PTS12066V150	3.00	3.50	1.50	1.80	0.55	1.15	0.125	0.08	0.45
PTS12066V200	3.00	3.50	1.50	1.80	0.55	1.15	0.125	0.08	0.45

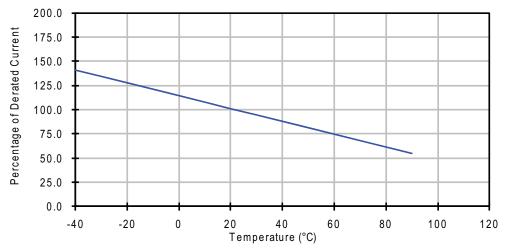


Time-to-Trip Curves at 23°C



0111 BU-SB11016 Page 2 of 4 Data Sheet 4397 **COOPER Bussmann**

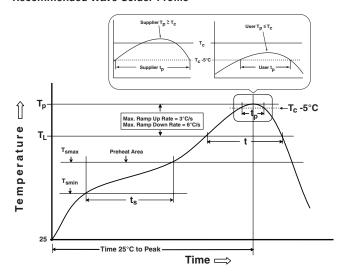
Thermal Derating Curve



Soldering Methods

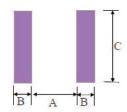
- Wave Solder
 - Reservoir Temperature: 260°C (500°F)
 - Recommended time in reservoir: 10 seconds.
- Infrared Reflow
 - Temperature: 260°C
 - Time: 10 seconds maximum at peak temperature.

Recommended Wave Solder Profile



Environmental Specifications								
Characteristic	Value							
Operating Temperature Range	-40°C to +85°C							
Surface Temperature Trip State	125°C max.							
Thermal Shock	+85°C to -40°C, 10 cycles,							
	5% typical resistance change							
Solvent Resistance	MIL-STD-202 Method 215, no change							
Humidity Age Test	+85°C, 85% RH, 1000 hours							
	±5% typical resistance change.							
	Specified temperature (23°C ± 3°C)							
Storage Temperature Range	-10°C to +40°C							
Storage Duration	One year							
Storage Relative Humidity	≤75%							
Storage Conditions	Keep away from corrosive atmosphere and sunlight							

Recommended Land Pattern - mm (in)



Α	В	С
2.0 (0.079)	1.0 (0.039)	1.9 (0.075)

Material Composition

• Terminal material: Nickel/tin-plated copper

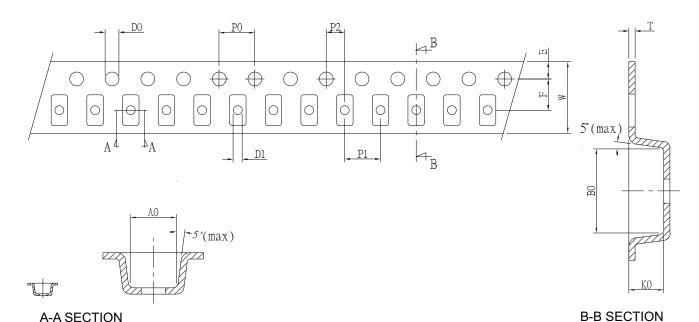
Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat & Soak		
Temperature min (T _{smin})	100°C	150°C
Temperature max (T _{smax})	150°C	200°C
Time (T _{smin} to T _{smax}) (t _S)	60-120 seconds	60-120 seconds
Average ramp-up rate (T _{smax} to T _p)	3°C/second max.	3°C/second max.
Liquidous temperature (T _L)	183°C	217°C
Time at liquidous (t _L)	60-150 seconds	60-150 seconds
Peak package body temperature (T _p)*	See classification temp in Table 4.1	See classification temp in Table 4.2
Time (t _p)** within 5°C of the specified	20** seconds	30** seconds
classification temperature (T _c)		
Average ramp-down rate (T _p to T _{smax})	6°C/second max.	6°C/second max.
Time 25°C to peak temperature	6 minutes max.	8 minutes max.

* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

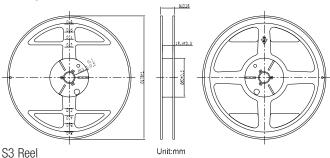
COOPER Bussmann Data Sheet 4397 0111 BU-SB11016 Page 3 of 4

Packaging Specifications



	For PTS120660V005, PTS120660V010, PTS120615V050, PTS12066V100, PTS12066V110, PTS12066V150, PTS12066V200												
Index	A0	B0	K0	P0	P1	P2	T	Е	F	D0	D1	W	10P0
Type	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1	±0.05	+0.1/-0	Min.	±0.1	±0.2
1206	1.95	3.55	1.35	4.0	4.0	2.0	0.25	1.75	3.5	1.5	1.0	8.1	40.0
F	For PTS120630V012, PTS120630V016, PTS120624V020, PTS120616V025, PTS120616V035, PTS12066V050, PTS12066V075												
Index	A0	B0	K0	P0	P1	P2	T	Е	F	D0	D1	W	10P0
Type	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.1	±0.1	±0.05	±0.05	Min.	±0.3	±0.2
1206	1.85	3.45	0.74	4.0	4.0	2.0	0.25	1.75	3.5	1.55	1.0	8.0	40.0

Reel Specifications



The only controlled copy of this Data Sheet is the electronic read-only version located on the Cooper Bussmann Network Drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

Life Support Policy: Cooper Bussmann does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

© 2011 Cooper Bussmann www.cooperbussmann.com







