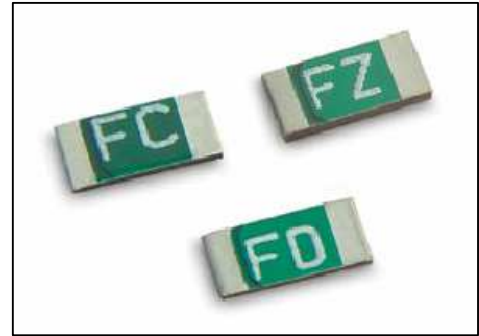




# PROTECTRON ELECTROMECH (P) LTD

DESCRIPTION : SURFACE MOUNT PTC FUSE

PART NO: PSMD1206 SERIES  
(REFER TABLE)



## 1. Summary

- (a) RoHS Complaint (Lead Free) Product
- (b) Application: All High – Density Boards
- (c) Product Features : Small Surface Mountables, Solid State, Faster Time to Trip than Standard SMD Devices, Lower resistance than standard SMD devices.
- (d) Operation Current: 50mA–1.5A
- (e) Maximum Voltage: 6V–60V
- (f) Temperature Range: –40°C to 85°C

## 2. Electrical Characteristics (23°C)

Part Number	Hold Current	Trip Current	Rated Voltage	Max. Current	Typical Power	Max. Time to Trip		Resistance Tolerance	
						CURRENT	TIME	R min	R1 max
						Amp	Sec	ohms	ohms
PSMD005–1206	0.05	0.15	60	10	0.4	0.25	1.50	3.60	50.00
PSMD010–1206	0.10	0.25	60	10	0.4	0.50	1.00	1.60	15.00
PSMD020–1206	0.20	0.40	30	10	0.4	8.00	0.05	0.60	2.50
PSMD035–1206	0.35	0.75	16	40	0.4	8.00	0.10	0.30	1.20
PSMD050–1206	0.50	1.00	8	40	0.4	8.00	0.10	0.15	0.70
PSMD075–1206	0.75	1.50	6	40	0.6	8.00	0.20	0.10	0.29
PSMD100–1206	1.00	1.80	6	100	0.6	8.00	0.30	0.055	0.27
PSMD150–1206	1.50	3.00	6	40	0.8	8.00	1.00	0.040	0.12

NOTE : Specification subject to change without notice.



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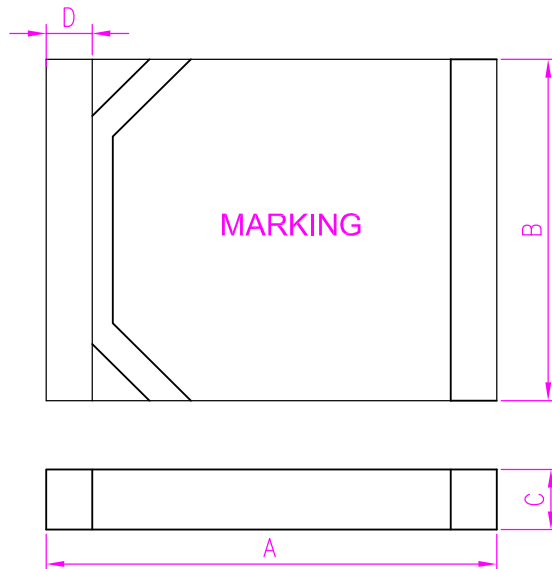
IH= Hold current—maximum current at which the device will not trip at 25°C still air.  
 IT= Trip current—minimum current at which the device will always trip at 23°C still air.  
 VMAX= Maximum voltage device can withstand without damage at its rated current (I max)..  
 IMAX= Maximum fault current device can withstand without damage at rated voltage (Vmax).  
 Pd= Maximum power dissipation when device is in the tripped state in 23°C still air environment at rated voltage.

RMIN= Minimum/Maximum device resistance prior to tripping at 23°C.

R1MAX= Maximum device resistance is measured one hour post reflow.

CAUTION: Operation beyond the specified ratings may result in damage and possible arcing and flame.

### 3 Product Dimensions (millimeter):



NOTE : Specification subject to change without notice.

A	ORIGINAL	ANIL	07.05.2008	SACHIN	SURINDRA	
REV.	DESCRIPTION		DRN. BY	DATE	CK'ED BY	APP'D BY
Projection: 		Scale: NTS	Sht. Size: A4	Gen. Tol.: ±0.5mm ±1°	ALL DIMENSIONS ARE IN MM. IF UNLESS OTHERWISE SPECIFIED.	



# PROTECTRON ELECTROMECH (P) LTD

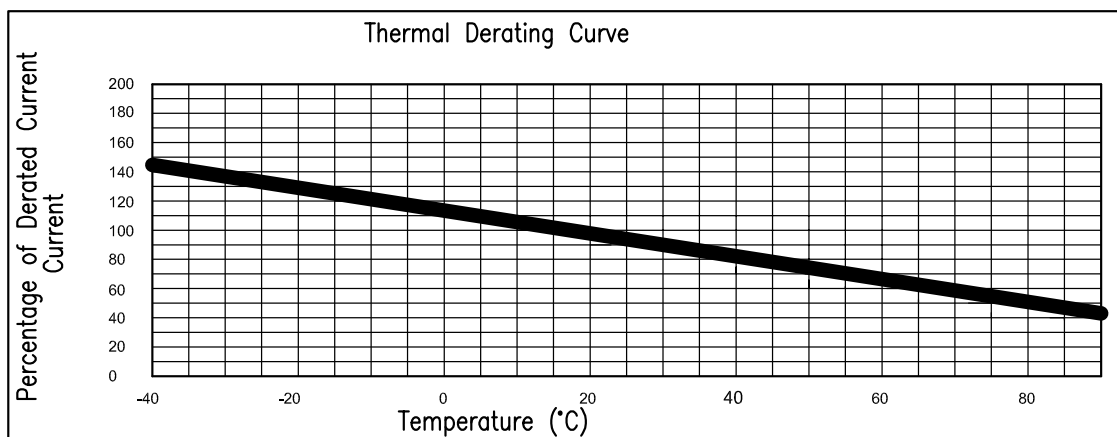
DESCRIPTION : SURFACE MOUNT PTC FUSE

PART NO: PSMD1206 SERIES  
(REFER TABLE)

## PHYSICAL DIMENSIONS (mm)

PART NUMBER	A		B		C		D
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
PSMD005-1206	3.0	3.5	1.5	1.8	0.45	0.75	0.10
PSMD010-1206	3.0	3.5	1.5	1.8	0.45	0.75	0.10
PSMD020-1206	3.0	3.5	1.5	1.8	0.45	0.75	0.10
PSMD035-1206	3.0	3.5	1.5	1.8	0.45	0.75	0.10
PSMD050-1206	3.0	3.5	1.5	1.8	0.45	0.75	0.10
PSMD075-1206	3.0	3.5	1.5	1.8	0.45	1.25	0.10
PSMD100-1206	3.0	3.5	1.5	1.8	0.75	1.25	0.10
PSMD150-1206	3.0	3.5	1.5	1.8	0.4	0.8	0.15

## 4. Thermal Derating Curve :





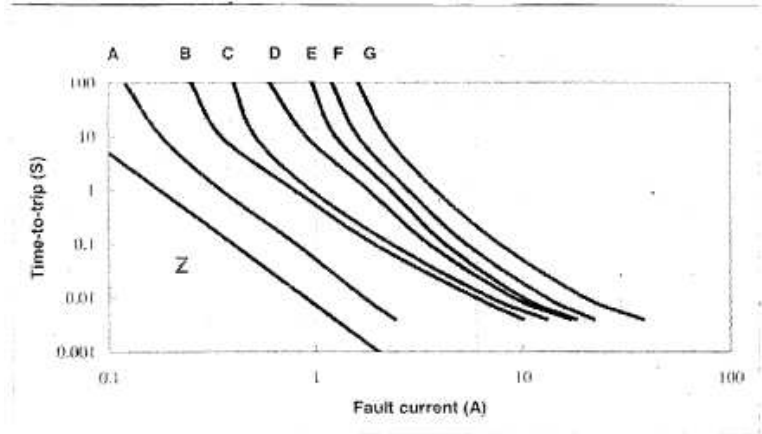
# PROTECTRON ELECTROMECH (P) LTD

DESCRIPTION : SURFACE MOUNT PTC FUSE

PART NO: PSMD1206 SERIES  
(REFER TABLE)

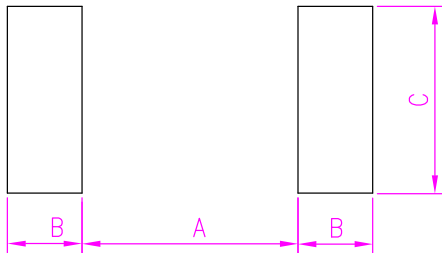
## 5. Typical Time-To-Trip at 23°C

- Z=PSMD005-1206
- A=PSMD010-1206
- B=PSMD020-1206
- C=PSMD035-1206
- D=PSMD050-1206
- E=PSMD075-1206
- F=PSMD100-1206
- G=PSMD150-1206



## 6. Pad Layouts, Solder Reflow & Rework Recommendations

The dimension in the table below provided the recommended pad layout for each PSMD1206 device



PAD LAYOUT

Pad Dimensions (Millimeters)

DEVICE	A NOMINAL	B NOMINAL	C NOMINAL
PSMD005-1206	2.00	1.00	1.90
PSMD010-1206	2.00	1.00	1.90
PSMD020-1206	2.00	1.00	1.90
PSMD035-1206	2.00	1.00	1.90
PSMD050-1206	2.00	1.00	1.90
PSMD075-1206	2.00	1.00	1.90
PSMD100-1206	2.00	1.00	1.90
PSMD150-1206	2.00	1.00	1.90

NOTE : Specification subject to change without notice.



# PROTECTRON ELECTROMECH (P) LTD

DESCRIPTION : SURFACE MOUNT PTC FUSE

PART NO: PSMD1206 SERIES  
(REFER TABLE)

## Solder Reflow

Due to "Lead Free" nature, Temperature & Dwelling time for the soldering zone is higher than those for Regular. This may cause damage to other components

1. Recommended max past thickness is 0.25mm.
2. Devices can be cleaned using standard method & aqueous solvent.
3. For rework use standard industry practices.
4. Storage Environment : < 30°C / 60% RH

## Caution

1. If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.
2. Devices are not designed to be wave soldered to the bottom side of the board.

## 7. Material Specification :

Lead Material : Tin Plated copper

**Warning** :- Operations beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.



-PPTC device are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.

Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.

### ORDERING INFORMATION

PSMD1206 SERIES  
(REFER TABLE)

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