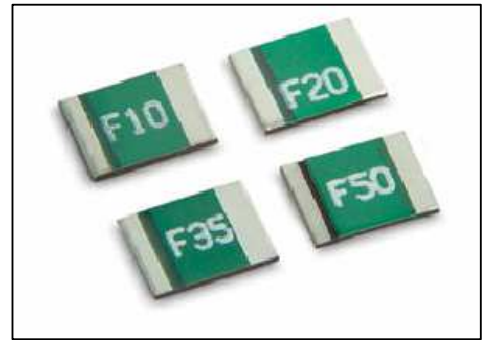




# PROTECTRON ELECTROMECH (P) LTD

DESCRIPTION : SURFACE MOUNT PTC FUSE

PART NO: PSMD1210 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	RMIN	R1MAX
						Amp	Sec	ohms	ohms
PSMD005-1210	0.05	0.15	60	10	0.60	0.25	1.50	3.60	50.00
PSMD010-1210	0.10	0.25	60	10	0.60	0.50	1.50	2.10	15.00
PSMD020-1210	0.20	0.40	30	10	0.60	8.00	0.02	0.80	5.00
PSMD035-1210	0.35	0.70	20	40	0.60	8.00	0.20	0.32	1.30
PSMD050-1210	0.50	1.00	16	40	0.60	8.00	0.10	0.25	0.90
PSMD075-1210	0.75	1.50	8	40	0.60	8.00	0.10	0.13	0.40
PSMD110-1210	1.10	2.20	6	40	0.80	8.00	0.30	0.07	0.21
PSMD150-1210	1.50	3.00	6	40	0.80	8.00	0.50	0.04	0.12

NOTE : Specification subject to change without notice.



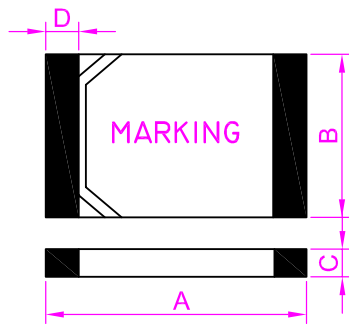
# PROTECTRON ELECTROMECH (P) LTD

DESCRIPTION : SURFACE MOUNT PTC FUSE

PART NO: PSMD1210 SERIES  
(REFER TABLE)

IH= Hold current—maximum current at which the device will not trip at 23°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.  
 IMAX= Maximum fault current device can withstand without damage at rated voltage (V max.).  
 Pd= Typical power dissipated—type amount of power dissipated by the device when in tripped state in 23°C still air environment.  
 RMIN= Minimum device resistance at 23°C.  
 R1MAX= Maximum device resistance at 23°C, 1 hour after tripping.

### 3 Product Dimensions (millimeter):



PART NUMBER	A		B		C		D
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
PSMD050-1210	3.00	3.43	2.35	2.80	0.60	1.15	0.25
PSMD010-1210	3.00	3.43	2.35	2.80	0.60	1.15	0.25
PSMD020-1210	3.00	3.43	2.35	2.80	0.45	0.85	0.25
PSMD035-1210	3.00	3.43	2.35	2.80	0.45	0.80	0.25
PSMD050-1210	3.00	3.43	2.35	2.80	0.40	0.75	0.25
PSMD075-1210	3.00	3.43	2.35	2.80	0.35	0.70	0.25
PSMD110-1210	3.00	3.43	2.35	2.80	0.90	1.30	0.25
PSMD150-1210	3.00	3.43	2.35	2.80	1.45	2.25	0.25

NOTE : Specification subject to change without notice.

A ORIGINAL				SACHIN	16.01.2007			
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.				

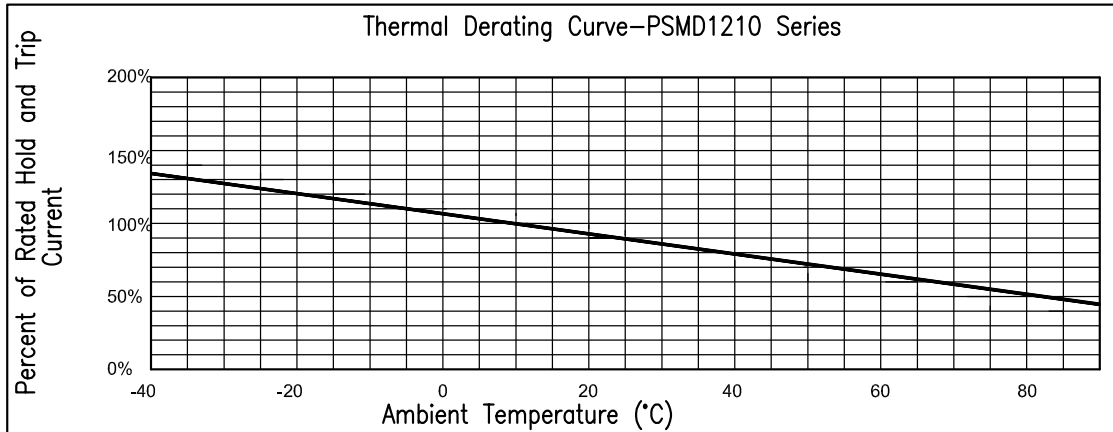


# PROTECTRON ELECTROMECH (P) LTD

DESCRIPTION : SURFACE MOUNT PTC FUSE

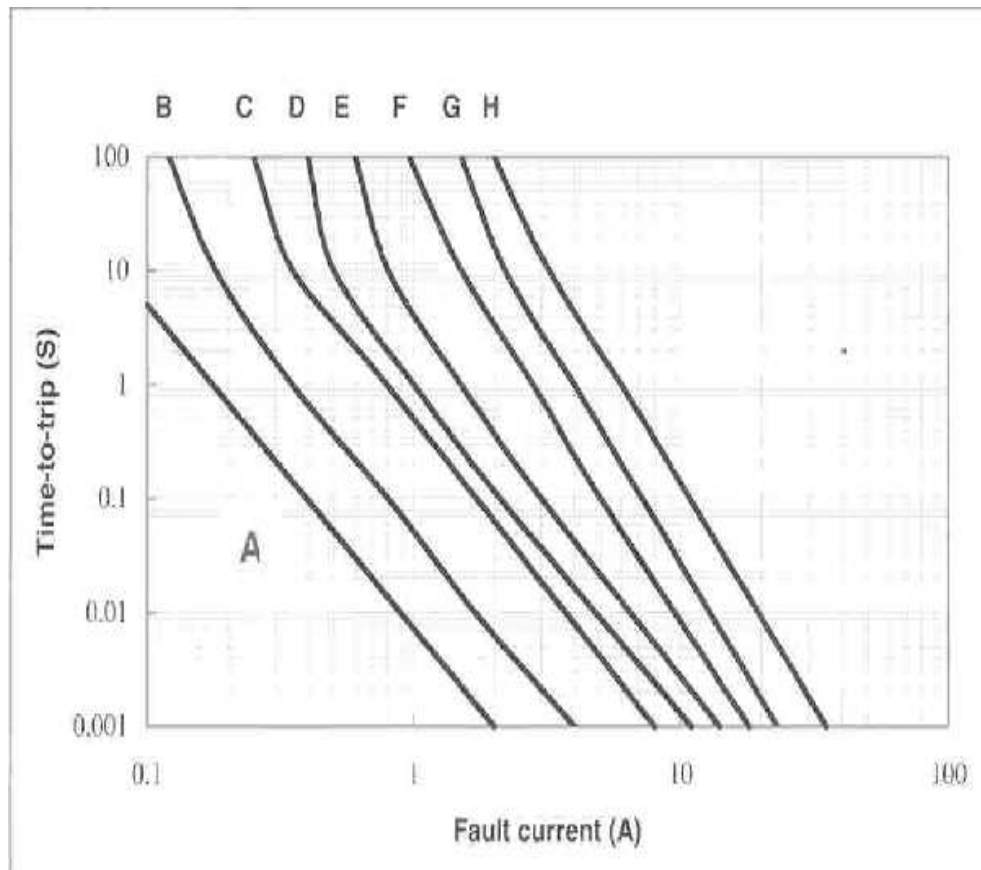
PART NO: PSMD1210 SERIES  
(REFER TABLE)

## 4. Thermal Derating Curve :



## 5. Typical Time-To-Trip at 23°C

- A=PSMD050-1210
- B=PSMD010-1210
- C=PSMD020-1210
- D=PSMD035-1210
- E=PSMD050-1210
- F=PSMD075-1210
- G=PSMD110-1210
- H=PSMD150-1210





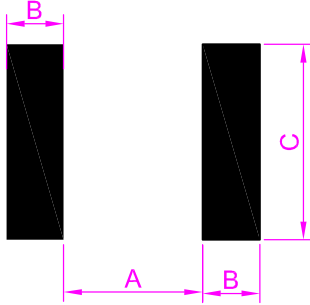
# PROTECTRON ELECTROMECH (P) LTD

DESCRIPTION : SURFACE MOUNT PTC FUSE

PART NO: PSMD1210 SERIES  
(REFER TABLE)

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

The dimension in the table below provided the recommended pad layout for each PSMD1210 device



Pad Dimensions (Millimeters)

DEVICE	A NOMINAL	B NOMINAL	C NOMINAL
PSMD005-1210	2.00	1.00	2.80
PSMD010-1210	2.00	1.00	2.80
PSMD020-1210	2.00	1.00	2.80
PSMD035-1210	2.00	1.00	2.80
PSMD050-1210	2.00	1.00	2.80
PSMD075-1210	2.00	1.00	2.80
PSMD110-1210	2.00	1.00	2.80
PSMD150-1210	2.00	1.00	2.80

### 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 maximum paste thickness is 0.25mm.
2. Devices can be cleaned using standard industry methods and solvents.

### Caution

1. If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

### Rework:

Use standard industry practices.

## 7. Material Specification :

Lead Material : Tin Plated copper

NOTE : Specification subject to change without notice.



# PROTECTRON ELECTROMECH (P) LTD

DESCRIPTION : SURFACE MOUNT PTC FUSE

PART NO: PSMD1210 SERIES  
(REFER TABLE)

**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

PSMD1210 SERIES  
(REFER TABLE)

NOTE : Specification subject to change without notice.