

### AAPW-P Series

#### Features

- Qualified to AEC-Q200.
- RoHS compliance.
- Dual winding inductors that can be used as a single inductor, SEPIC, Flyback, or other coupled inductor/transformer applications (1:1 turns ratio). Windings can be connected in series or parallel, offering a wide range of inductance and current ratings.

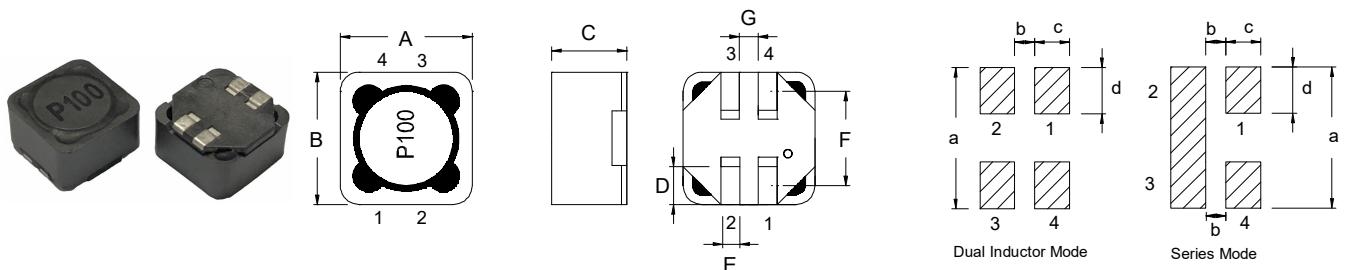
#### Applications

- Body electronics
  - Headlamps, tail lamps and interior lighting
  - Heating Ventilation and Air Conditioning controllers (HVAC)
  - Doors, window lift and seat control
- Advanced driver assistance systems
  - Adaptive cruise control (ACC)
  - Collision avoidance system
  - Car black box system
- Infotainment and cluster electronics
  - Audio subsystem: head unit and trunk amp
  - Digital instrument cluster
  - In-Vehicle Infotainment (IVI) and navigation
- Chassis and safety electronics
  - Electronic Stability Control system (ESC)
  - Electric parking brake
  - Electronic Power Steering (EPS)
- Engine and powertrain systems
  - Diesel/gasoline engine management
  - Powertrain Control Module (PCM)/Engine Control Unit (ECU)
  - Transmission Control Unit (TCU)

#### Test Equipment and Conditions

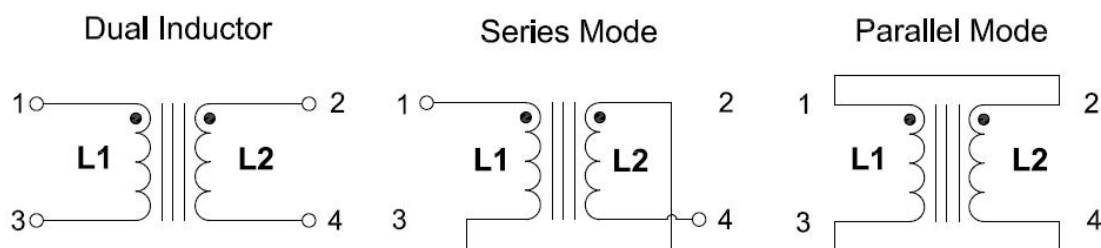
- All test data is referenced to 25°C ambient.
- Operating temperature range -40°C to +125°C. (Including self - temperature rise)
- DC current (Irms) that will cause an approximate  $\Delta T$  of 40°C.
- DC current (Isat) that will cause L0 to drop approximately 35%.
- Test frequency at 100KHz, 0.25V.

#### External Dimensions (Unit : mm)



TYPE	A	B	C	D Typ.	E Typ.	F Typ.	G Typ.	a Typ.	b Typ.	c Typ.	d Typ.	Q'TY/Reel
AAPW12P80	12.5Max	12.5Max	8.0Max	2.0	1.7	10.0	1.6	13.8	0.5	2.5	3.85	350

### Schematics



### Part Number Code

AAPW    12    P    80    M    100  
           A        B        C        D        E        F

A: Type of product                      Power Inductors  
 B: Dimensions(mm)                    12: 12.5 x12.5 Max  
 C: Materials                              P Type  
 D: Thickness(mm)                      80: 8.0 Max  
 E: Tolerance                              M:  $\pm 20\%$   
 F: Inductance                            100=10uH

### AAPW-P Series

Part Number	Rated Inductance ( $\mu$ H)	Parallel Ratings					Series Ratings				
		OCL $\pm 20\%$ ( $\mu$ H)	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	OCL $\pm 20\%$ ( $\mu$ H)	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.
AAPW12P80M100	10	9.63	6.02	11.2	18.0	22.0	38.5	3.01	5.60	72.0	89.0
AAPW12P80M150	15	14.9	4.83	9.03	27.0	32.0	59.6	2.41	4.52	108.0	128.0
AAPW12P80M220	22	22.0	3.98	7.57	40.0	47.0	88.0	1.99	3.79	162.0	192.0
AAPW12P80M330	33	32.0	3.22	6.22	60.0	72.0	128.0	1.61	3.11	240.0	288.0
AAPW12P80M470	47	47.9	2.62	5.09	91.0	110.0	192.0	1.31	2.54	364.0	440.0