



60000 SERIES

PACKAGE A5 QPL: M27/372



MIL-PRF-27

ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -55°C to +130°C
- **Storage Temperature:** -60°C to +135°C
- **Temperature Rise @ 90°C:** < 35°C
- **Inductance at rated DC:** $\geq 70\%$ of initial
- **Dielectric Withstanding Voltage:** 100 V_{RMS}
- **Different electrical values available upon request**

FEATURES

- **Compact**, low profile, ideal for automatic placement
- Built to meet **MIL-PRF-27** specifications
- **Terminations:** Tin-lead
- **Welded Internal Connections**
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- **Multiple Configurations:** Series, parallel, transformer, dual inductor
- **Other termination finishes available**

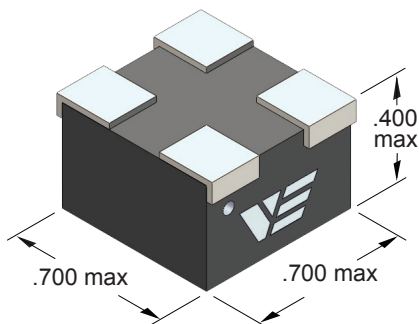
APPLICATIONS

- Filter inductors
- Power supplies
- Ripple suppressors
- DC/DC converters
- Common mode chokes
- SEPIC converters
- Isolation transformers

ORDERING INFORMATION

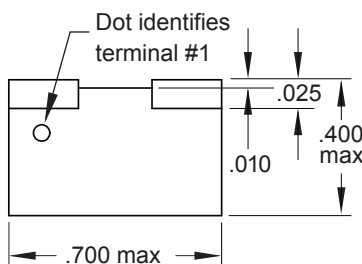
- Order to Mil-spec part number or VE part number

Inductance Range (uH)	DCR max (Ohms)	Current Rating (mA)
2.76 to 10000	0.006 to 18.80	180 to 12000

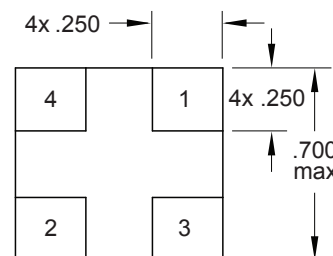


THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

MARKINGS: LASER ETCH OR INK

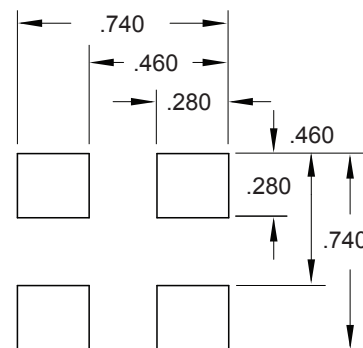


SIDE VIEW



BOTTOM VIEW

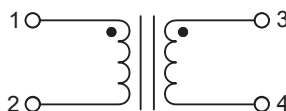
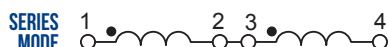
IN	MM
0.740	18.80
0.700	17.78
0.460	11.68
0.400	10.16
0.280	7.11
0.250	6.35
0.025	0.64
0.010	0.25



RECOMMENDED MOUNTING PAD CIRCUIT SIDE

TYPICAL USER CONNECTIONS

SCHEMATIC

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DATA TABLE

Vanguard P/N	QPL P/N M27/372	Series Inductance (uH $\pm 12\%$)	Series Rated DC Current (mA)	Series DCR max (Ohms)	Parallel Inductance (uH $\pm 12\%$)	Parallel Rated DC Current (mA)	Parallel DCR max (Ohms)
60041	-041	11	4800	0.024	2.76	9600	0.006
60042	-042	18	3700	0.036	4.50	7400	0.009
60043	-043	27	3000	0.052	6.75	6000	0.013
60044	-044	38	2500	0.076	9.50	5000	0.019
60045	-045	44	2400	0.084	11.00	4800	0.021
60046	-046	100	1600	0.20	25.00	3200	0.050
60047	-047	200	1100	0.46	50.00	2200	0.115
60048	-048	400	800	0.84	100.00	1600	0.210
60049	-049	500	710	1.16	125.00	1420	0.290
60050	-050	750	570	1.76	187.50	1140	0.440
60051	-051	1000	500	2.00	250.00	1000	0.500
60052	-052	2000	350	4.32	500.00	700	1.075
60053	-053	3000	290	6.64	750.00	580	1.660
60054	-054	4000	250	7.68	1000.00	500	1.920
60055	-055	7500	180	16.20	187.50	360	4.050
60056	-056	10000	150	18.80	2500.00	300	4.700
60057	-057	11	6000	0.020	2.75	12000	0.005
60058	-058	18	4600	0.032	4.50	9200	0.008
60059	-059	27	3700	0.044	6.75	7400	0.011
60060	-060	38	3100	0.064	9.50	6200	0.016
60061	-061	44	3000	0.068	11.00	6000	0.017
60062	-062	100	2000	0.152	25.00	4000	0.038
60063	-063	200	1300	0.340	50.00	2600	0.085
60064	-064	400	890	0.600	100.00	1780	0.150
60065	-065	500	800	0.848	125.00	1600	0.212
60066	-066	750	700	1.32	187.50	1400	0.330
60067	-067	1000	600	1.52	250.00	1200	0.380
60068	-068	2000	430	3.40	500.00	860	0.850
60069	-069	3000	360	5.20	750.00	720	1.300
60070	-070	4000	310	6.08	1000.00	620	1.520
60071	-071	7500	220	13.20	1875.00	440	3.300
60072	-072	10000	180	15.20	2500.00	360	3.800

Inductance measured at 10 kHz, 0.1 V_{RMS}

CUSTOM DESIGNS & MODIFICATIONS:

Other electrical configurations and performance characteristics are available in various sizes and package types

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