

# SGCM05339 Space Grade SMD Common Mode Choke

## Molded, Customizable SMD

## Common Mode Choke

## Qualified for Space Applications

### ADVANTAGE



Low profile, ruggedized design offers operation up to 14.4 A with low DCR. Customizable with multiple screening options to meet the requirements of different applications.

### KEY PRODUCT FEATURES

- ✓ Nanocrystalline core technology for superior performance
- ✓ Self-shielded construction for low EMI
- ✓ Fully qualified to MIL-PRF-27 / MIL-STD-981 Class S



### RESOURCES



### MARKETS AND APPLICATIONS



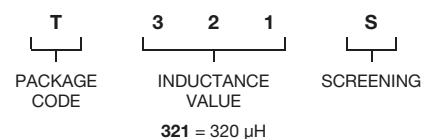
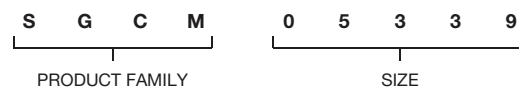
#### AEROSPACE AND DEFENSE

- GaN and SiC switching devices
- Low profile, high current power supplies
- DC/DC converters in distributed power systems
- Power converters for solar panels
- Noise suppression

### CONDENSED SPECIFICATIONS FOR STANDARD CMC

(see [datasheet for detailed specifications](#))

- 15 standard configurations
- 320  $\mu$ H to 10.4 mH inductance
- Common mode impedance: 540  $\Omega$  to 4040  $\Omega$  @ 10 MHz
- DC resistance: 3 m $\Omega$  to 132 m $\Omega$
- Current rating: 2 A to 14.4 A
- Package size: 13.6 mm x 13.6 mm x 10 mm





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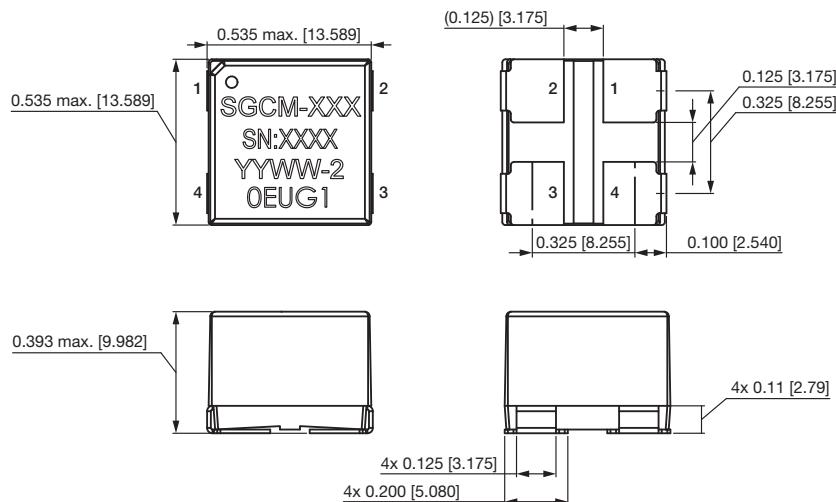
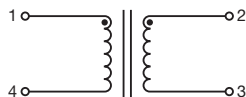
## ADDITIONAL BENEFITS

- MIL-STD-981 Family 04 – power inductor, Class S compliant (1)(2)
- MIL-PRF-27 Grade 5, Product Level T, Temperature Class S qualified
- ASTM-E595 outgassing compliant
  - (1) Screening codes B and S only
  - (2) Clarifications to MIL-STD-981 (1):
    - a. MIL-STD-981 Figures 3b, 3c, and 3d do not apply to this assembly's build construction
    - b. MIL-STD-981 5.5.10 and 5.5.11: parts soldered and inspected to J-STD-001S (space addendum)

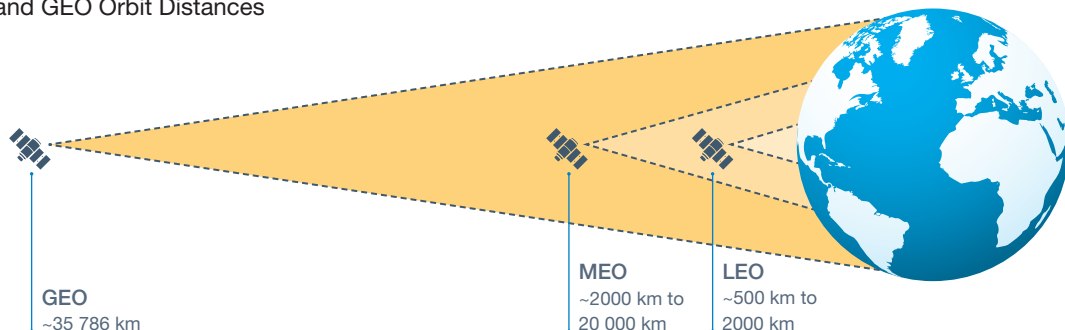
SGCM	Screening Code Levels of Screening
S	MIL-STD-981 Class S Group A / B Screen
B	MIL-STD-981 Class B Group A / B Screen
E2	EEE-INST-002 Level 2 Screening
E3	EEE-INST-002 Level 3 Screening
L	LEO custom screening plan
P	Basic production screen – product is not MIL-STD-981 compliant

## DIMENSIONS in inches [millimeters]

**Schematic 1**



## LEO, MEO, and GEO Orbit Distances



The SGCM is the ideal choice for a customizable common mode choke in space applications where performance, height, and footprint are critical. Please [contact Vishay](#) for more information on this exciting new product.