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共烧陶瓷生瓷带

41020

CO-FIRE CERAMIC TAPE

RoHS认证、共烧陶瓷生带用于介电常数~8的多层和微波应用
RoHS Compliant Ceramic Tape For Multilayer and Microwave Applications Requiring Dielectric Constant ~ 8

ESL41020是由分散在有机基体里的无机电介质粉末而形成的弹性挤塑薄膜。在850℃到875℃下烧结形成致密体。多层部件可由数张金属化的生瓷带在烧结前经过层叠而形成的一个整体结构。在温度为70℃、压强为21MPa的条件下，层叠此生瓷带，效果最好。该产品被定型在硅涂层聚酯薄膜上，以减小环境污染，防止其受到机械损伤，且便于操作处理。该瓷带可应用于低介电常数的微波应用中。

The 41020 is a flexible cast film of inorganic dielectric powder dispersed in an organic matrix. It is designed to be fired at 850°C to 875°C to give a dense body. Multilayer parts can be formed by laminating metallized sheets of the tape into a monolithic structure prior to firing. A pressure/temperature combination of 21 MPa and 70°C works well for laminating this tape. Ceramic tape is provided on a silicone coated polyester film to minimize environmental contamination, to protect it from mechanical damage, and to aid in handling. This material is useful in microwave applications that require low dielectric constant.

工艺参数 PROCESSING PARAMETERS

层叠条件 LAMINATING:	21 MPa at 70°C
烧结温度 FIRING TEMPERATURE:	850℃ - 875°C
峰值时间 TIME AT PEAK TEMPERATURE:	10-12 分钟

瓷带特征 TAPE CHARACTERISTICS

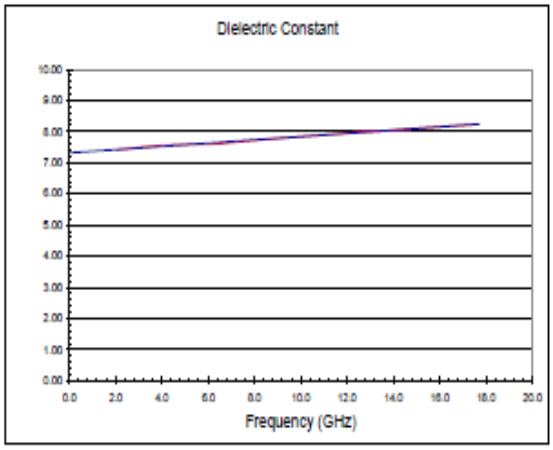
瓷带厚度 TAPE THICKNESS:	100-130 微米
颜色 COLOR:blue	蓝色
保质期 SHELF LIFE:	6 个月

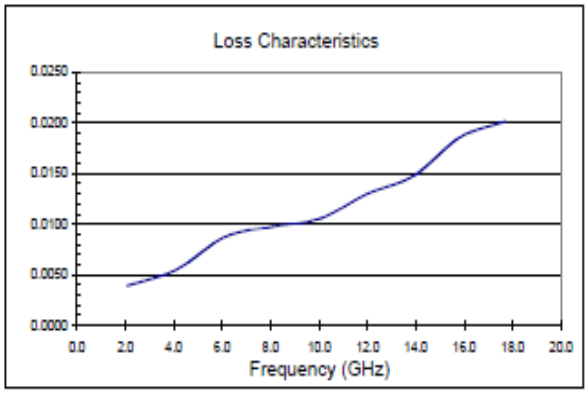
烧结瓷带特性 FIRED TAPE PROPERTIES (Using co-fired ESL 903-A silver conductor)

介电常数 DIELECTRIC CONSTANT: (1MHz)	7.0-8.5
介电常数 DIELECTRIC CONSTANT: (GHz, cofired with 903-A silver conductor, see microwave properties below)	7.0-7.5
耗散因数 DISSIPATION FACTOR:(1MHz)	≤ 0.5%
绝缘电阻 INSULATION RESISTANCE: (100 VDC)	≥ 10^{12} Ω
热导率 THERMAL CONDUCTIVITY:	2.5-3.0 W/(m·K)
热膨胀系数 THERMAL COEFFICIENT OF EXPANSION: (25°C to 300°C)	7.4 ppm/°C

击穿电压 BREAKDOWN VOLTAGE:		> 1000 V/25 μm
高压试验 PRESSURE COOKER:(Insulation resistance after 15 minutes at 2 atmospheres)		≥ 10^{12} Ω
烧结收缩率 FIRED SHRINKAGE:(Using recommended processing parameters)	X and Y	14%±1 %
	Z	16%±2 %
烧结密度 FIRED DENSITY:(Theoretical)		3.16 g/cm^3
兼容的导体浆料 COMPATIBLE CONDUCTORS:		ESL 803、902、903-A, 903-B、903-D, 963

MICROWAVE PROPERTIES *





* Data obtained from measurements on ring resonators. Metallization is co-fired ESL 903-A.