FUJIPOLY

Fujipoly Data Sheet

SARCON EGR-11F

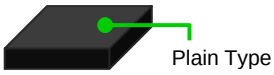
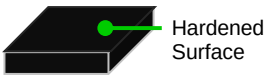
EM Noise Suppression Type

FEATURES

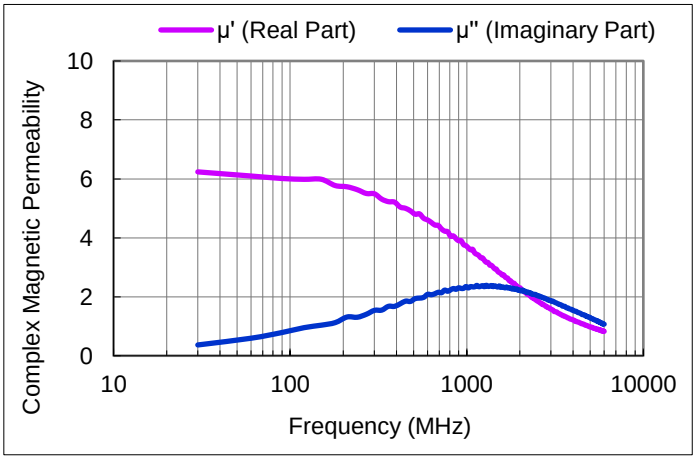
Silicone Gap Filler Pad for Suppression of Electromagnetic Wave

- Effective to absorb and damp a wide range of electromagnetic waves and also effective as a high performance thermal interface material.
- Easily filling small gaps of IC chip surface with soft gel texture.
- Good workability to simply insert the product between circuit board and casing.
- Self-adhesive gel surface does not require any adhesive tape for assembly.
- Extremely low level of low molecular siloxane.

CONSTRUCTIONS

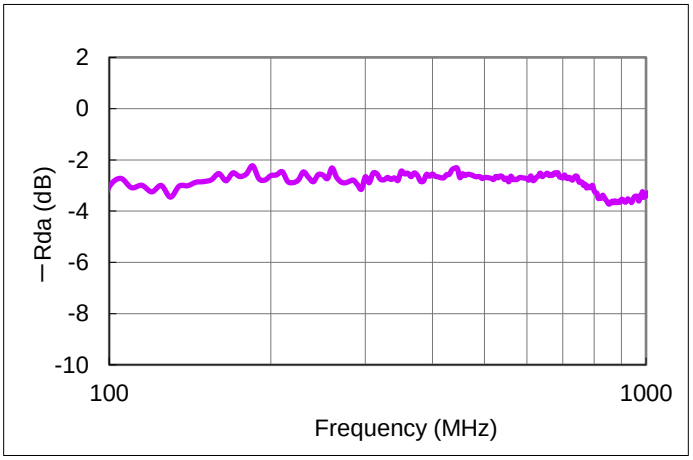
Series	Characteristics	Constructions
SARCON EGR-11F-00	Silicone compound with double sticky surfaces and Thermal Conductivity of EGR-11F material is 0.8W/m-K by using Hot Disk.	 Plain Type
SARCON EGR-11F-0H	Silicone compound as above EGR-11F-00 plus additional hardening of the top surface to facilitate handling and installation during complex assemblies	 Hardened Surface

COMPLEX MAGNETIC PERMEABILITY

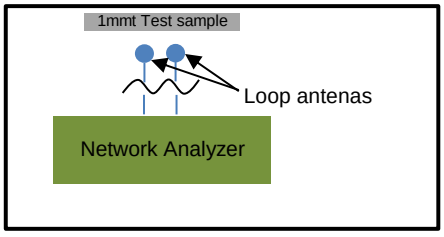


Specimen：EGR-11F-0H (Thickness = 1.0mm)

INTRA-DECOUPLING RATIO



Measurement standard：IEC 62333
Test Method：Intra-decoupling ratio, Rda



TYPICAL PROPERTIES

Properties		unit	EGR-11F		Test method	Specimen
Physical Properties	Color	-	Dark Gray		Visual	-
	Specific Gravity	-	3.1		ASTM D 792	A
	Hardness Highest Value	Shore OO (ASKER-C)	56 (28)		ASTM D2240 JIS K7312	B
Electrical Properties	Initial Magnetic Permeability	μ iac	6		-	-
	Volume Resistivity	Ohm-m	$1.0x10^{10}$		ASTM D 257	C
	Breakdown Voltage	V/mm (volts/mil)	500 (12.7)		ASTM D 149	C
	Dielectric Constant	-	50Hz	28.33	ASTM D 150	A
			1kHz	27.05		
			300kHz	26.09		
	Dissipation Factor	-	50Hz	0.031	ASTM D 150	A
			1kHz	0.020		
			300kHz	0.005		
Thermal Properties	Thermal Conductivity	W/m-K	1.0	by Hot Wire	ASTM D 2326	-
			0.8	by Hot Disk	ISO 22007-2	
	Useful Temperature	℃ (°F)	-30 to +120 (-22 to +248)		-	-
	Low molecular Siloxane	wt%	D_3 to D_{10}	0.0010	Gas Chromatography	-
			D_{11} to D_{20}	0.0026		
	Flame Retardant	-	V-0		UL 94	-

• Specimen A：2mmT • Specimen B：20mmW x 60mmL x 10mmT • Specimen C：120mmW × 120mmL × 1mmT

THERMAL RESISTANCE

EGR-11F-00

Compression Force	1.5mmT
100kPa /14.5psi	12.1 (1.88)
300kPa /43.5psi	10.4 (1.61)
500kPa /72.5psi	9.7 (1.50)

EGR-11F-0H

Unit：K-cm^2/W (K-in^2/W)

Compression Force	0.5mmT	1.0mmT
100kPa /14.5psi	6.8 (1.05)	9.6 (1.48)
300kPa /43.5psi	6.4 (0.99)	8.8 (1.36)
500kPa /72.5psi	6.1 (0.95)	8.4 (1.30)

Test method：Fujipoly Test method, FTM-P3050 by TIM Tester 1300 which is ASTM D5470 equivalent

• Specimen Area：DIA.33.0mm (1.30in)

COMPRESSION FORCE

EGR-11F-00

Compression Rate	1.5mmT
10%	48 (10.8)
20%	202 (45.8)
30%	354 (80.2)
40%	521 (118.0)
50%	763 (172.9)
Sustain 50%	367 (83.2)

EGR-11F-0H

Unit：N/6.4cm^2 (psi)

Compression Rate	0.5mmT	1.0mmT
10%	54 (12.2)	41 (9.3)
20%	288 (65.3)	225 (51.0)
30%	566 (128.2)	422 (95.6)
40%	879 (199.1)	590 (133.7)
50%	1132 (256.5)	813 (184.2)
Sustain 50%	846 (191.7)	408 (92.4)

Test method：Measured by ASTM D575-91 for reference

• Specimen Area：DIA.28.6mm (1.13in) • Platen Area：DIA. 28.6mm (1.13in) • Sustain 50%：Sustain 50% at 1 minute later

• Compression Velocity：5.0mm/minute

TYPES AND CONFIGURATION

Series	Product Name	Thickness	Sheet Size
SARCON EGR-11F-00	150EG-11F-00	1.5mm ± 0.20mm	300mm × 200mm (Recommended Usable Size: 290mm×190mm)
SARCON EGR-11F-0H	50EG-11F-0H	0.5mm ± 0.15mm	
	100EG-11F-0H	1.0mm ± 0.20mm	

HANDLING NOTES

- It is recommended to use the material in up to 30% of compression ratio. Using the material beyond the recommended compression rate may result in excessive silicone oil exudation.
- It is recommended to compress the material with the equal ratio on the whole surface. Partial excessive stress may also result in excessive silicone oil exudation.

WARRANTY STATEMENT

- Fujipoly has been utilizing Hot Disk method and TIM Tester method since Fujipoly defined them as Fujipoly standard.
- Properties of the products may be revised due to some changes for improving performance.
- Properties values in this document are not specification or guaranteed.
- This product is made of silicone, and silicone oil may exude from the product.
- This product is made of silicone, and low molecular siloxane may vaporize depending on operating conditions.
- The product is designed, developed, and manufactured for general industrial use only. Never use for medical, surgical, and/or relating purposes. Never use for the purpose of implantation and/or other purposes by which a part of or whole product remains in human body.
- Before using, a safety must be evaluated and verified by the purchaser.
- Contents described in the document do not guarantee the performances and qualities required for the purchaser's specific purposes. The purchaser is responsible for pre-testing the product under the purchaser's specific conditions and for verifying the expected performances.
- Statements concerning possible or suggested uses made herein may not be relied upon, or be constructed, as a guaranty of no patent infringement.
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