

FNC/FNCRA

Characteristics

1. Because of excellent resistance to solder temperature , it bears up against flow-soldering process and is used consequently for a wide range of parts of high-class electronic equipmet.
2. Formation of highly densed patterns is possible because of it's excellent dimensional stability.
3. Excellent flexibility.
4. Excellent flame retardancy.

Specifications for Standard Products

Copper foil		Electrolytic Copper foil	Rolled copper foil
Thickness of foil(μm)		18,35	18,35
Thickness of adhesive layer(μm)		20	
Thickness of base film (μm)		25,50,75	
Standard size(mm)	Single sided copper clad laminate	250/500mmxRoll (100m)	
	Double sided copper clad laminate	250/500mmxRoll (50m)	

UL Recognition(File No.E46785)

Flammability class	94V-0 94VTM-0
Solder temp resistance	260 10se c
Rated temperature	105

Examples of Characteristic Properties of DNC/DNCRA

Test Item	Unit	Treatment conditions	Properties		Test methods
			PI film 12.5μm Rolled copper foil 18μm	PI film 25μm Rolled copper foil 35μm	
Insulation resistance	Ω	C-90/20/65	1.0x10 <sup>13</sup>		〔 JIS-C-6471 〕 IPC-FC-241B for test patterns
		+96/40/90	5.0x10 <sup>12</sup>		
Surface resistance	Ω	C-90/20/65	1.0x10 <sup>15</sup>		JIS-C-6471
		+96/40/90	5.0x10 <sup>14</sup>		
Volume resistance	Ω-cm	C-90/20/65	5.0x10 <sup>15</sup>		JIS-C-6471
		+96/40/90	1.0x10 <sup>15</sup>		
Withstand voltage Perpendicular to laminations	KV/mm	A	130		JIS-C-2120
		D-48/50	90		
Dielectric constant(1MHz)	-	A	3.3		JIS-C-6471
		D-24/23	3.6		
Dissipation factor(1MHz)	-	A	0.033		JIS-C-6471
		D-24/23	0.045		

Peel strength	K/mm	A	1.7	1.6	IPC-FC-241B
		E-1/200	1.6	1.5	
Solder temp resistance	-	A	300/30sec		IPC-FC-241B
Resistance to heat aging	-	A	No change in appearance E-1/200 treatment		JIS-C-6481
Chemical resistance		A	No change in appearance after immersion separately for 15min at room temp.in following chemicals Toluene, MEK, Methyl alcohol,Trichlor ethylene,10%HC1,10%KCH,10% NaOH		IPC-FC-241B
Water absorption	%	D- 24/50+D24/23	1.5		JIS-C-6481
Dimensional Stability	%	E-0.5 length-wise	-0.10		IPC-FC-241B
		150 cross-wise	-0.06		
Flexural resistance 2.0mmR	cycle	length-wise	1500	3600	JIS-C-6471
		cross-wise	1200	2400	