



Highly heat resistant Low CTE Multi-layer circuit board materials <High-Tg type>

高耐熱・低熱膨張多層基板材料 <High-Tgタイプ>



Laminate **R-1755D**

Prepreg **R-1650D**

Applications 用途

Automotive ECU, Etc.
車載 ECU など



Improved solder joint reliability by excellent connect reliability material.

Available for high voltage application by good to insulation reliability.

低温高温の温度サイクルでも接続信頼性に優れ、はんだ接続信頼性を向上。

絶縁信頼性に優れており、高電圧用途にも適用可

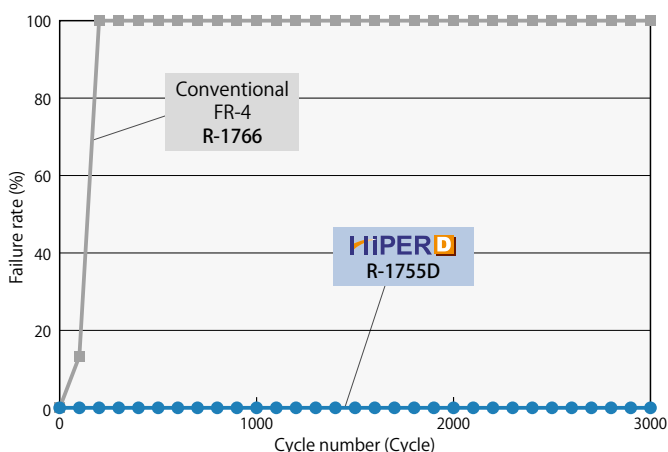
High Tg	Halogen-free R-1566S HiPERD R-1755D
Middle Tg	HiPERD R-1755M Halogen-free R-1566
Standard Tg	HiPERD R-1755E Standard FR-4 R-1766

T_g (DSC)
163°C

T_d (TGA)
345°C

CTE x-axis
10-12ppm/°C

Through-hole reliability スルーホール導通信頼性

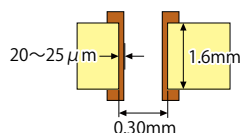


Condition

Cycle condition	-40°C (15min) ⇄ 150°C (15min)
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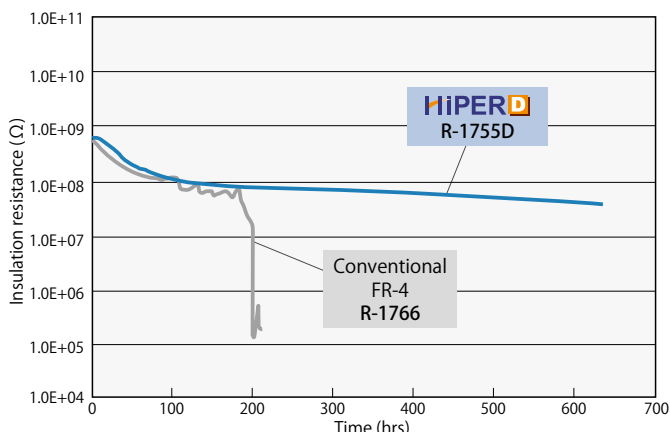
* Failure is over 10% changes of resistance

Construction



Insulation reliability 絶縁信頼性

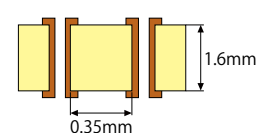
CAF evaluation



Condition

Board thickness	1.6mm
Condition	120°C 85%RH DC50V (HAST)
Through-hole wall to wall distance	0.35mm

Construction



General properties 一般特性

Item	Test method	Condition	Unit	HiPERD R-1755D	Conventional FR-4 R-1766
Glass transition temp.(T _g)	DSC	A	°C	163	140
Thermal decomposition temp.(T _d)	TGA	A	°C	345	315
CTE x-axis	IPC-TM-650 2.4.24	A	ppm/°C	10-12	11-13
CTE y-axis				12-14	13-15
T288(with copper)	IPC-TM-650 2.4.24.1	A	min	15	1
Peel strength	1oz(35 μm) IPC-TM-650 2.4.8	A	kN/m	1.3	2.0

The sample thickness is 0.8mm.

The above data are typical values and not guaranteed values. 上記データは当社測定による代表値であり、保証値ではありません。

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