



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

高耐熱・低熱膨張多層基板材料 <Middle-Tgタイプ>



Laminate **R-1755M**

Prepreg **R-1650M**

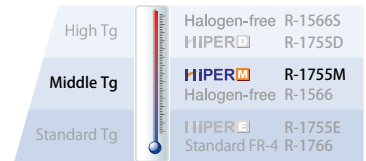
Applications 用途

Automotive component (ECU board), Photovoltaic (Inverter),
Electronic equipment requiring high reliability (using lead-free solder), Etc.
車載機器 (ECU 用基板)、太陽光発電、高信頼性が求められる電子機器
(鉛フリーはんだ使用) など



Improved connection reliability of circuit board for automotive by good CAF resistance.
Available for high voltage and industry application.

優れた耐CAF性により、車載用基板の接続信頼性を向上し更なる車の安全性に貢献。
高電圧用途・産業機器用途などにも対応

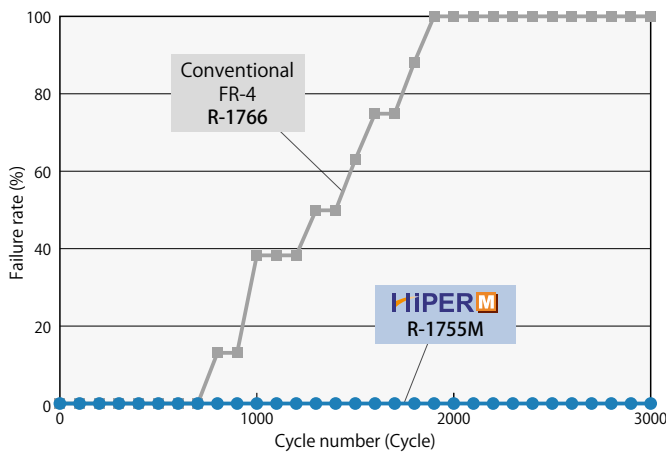


T_g (DSC)
153°C

T_d (TGA)
355°C

CTE z-axis
40ppm/°C

Through-hole reliability スルーホール導通信頼性

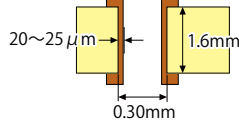


Condition

Cycle condition	-40°C (30min) ⇄ 125°C (30min)
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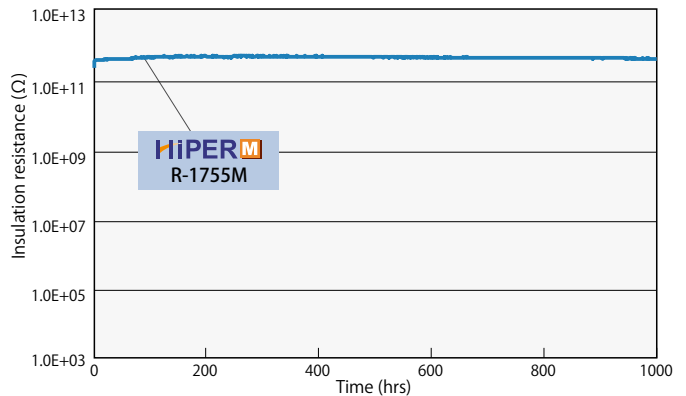
* Failure is over 10% changes of resistance

Construction



Insulation reliability 絶縁信頼性

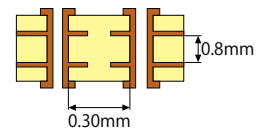
CAF evaluation



Condition

4-layers board	
Pretreatment	260°C Peak reflow x 3times
Condition	85°C 85%RH DC100V
Core	0.8 mm
Prepreg	#7628 x 1 ply
Through-hole wall to wall distance	0.30mm

Construction



General properties 一般特性

Item	Test method	Condition	Unit	HiPER M R-1755M	Conventional FR-4 R-1766
Glass transition temp.(T _g)	DSC	A	°C	153	140
Thermal decomposition temp.(T _d)	TGA	A	°C	355	315
CTE z-axis	IPC-TM-650 2.4.24	A	ppm/°C	α1	40
				α2	240
T288(with copper)	IPC-TM-650 2.4.24.1	A	min	18	1
Peel strength	1oz(35 μm) IPC-TM-650 2.4.8	A	kN/m	1.5	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。

Please see the page for "Notes before you use" 商品のご採用に当たっての注意事項は こちら