



Highly heat resistant Halogen-free Multi-layer circuit board materials

高耐熱ハロゲンフリー多層基板材料

Halogen-free

Laminate **R-1566S**

Prepreg **R-1551S**

Applications 用途

Automotive ECU, Automotive module, HEV/EV power control unit, DC/DC converter board, Etc.

車載 ECU、車載モジュール、HEV/EV パワーコントロールユニット、DC/DC コンバータ用基板など



Added highly heat resistant and tracking resistance to automotive quality R-1566 to improve the reliability of ECU boards used under severe conditions.

従来の R-1566 より高耐熱性と耐トラッキング性を向上し、高温環境下で使用される ECU 用基板の信頼性に貢献

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

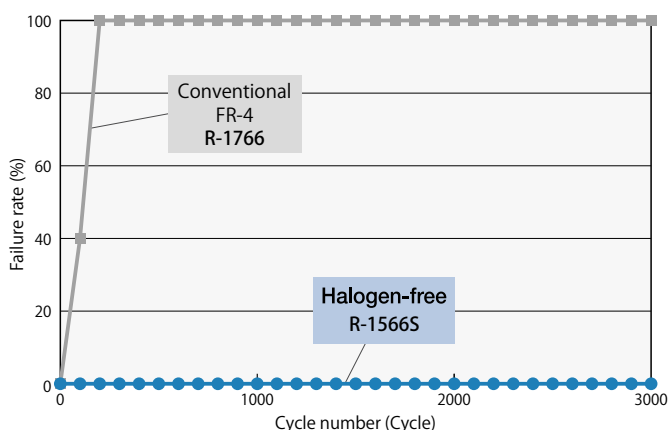
T_g (DSC)
175°C

T_d (TGA)
355°C

CTI ≥ 600V*

*actual value

Through-hole reliability スルーホール導通信頼性

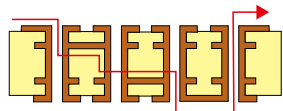


Condition

Cycle condition	-40°C (15min) ⇄ 160°C (15min)
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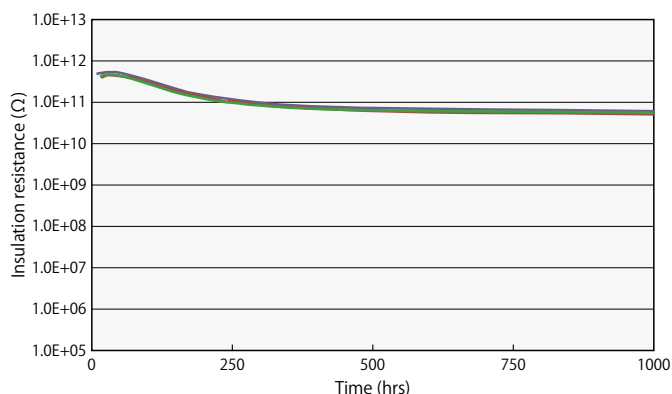
* Failure is over 10% changes of resistance
* 260°C Peak reflow x 3times as pretreatment

Construction



Insulation reliability 絶縁信頼性

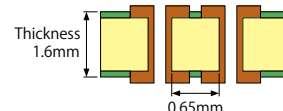
High voltage CAF evaluation



Condition

Pretreatment	260°C Peak reflow x 3times
Condition	85°C 85%RH DC 350V
Through-hole wall to wall distance	0.65mm

Construction



General properties 一般特性

Item	Test method	Condition	Unit	Halogen-free R-1566S	Conventional Halogen-free R-1566(W)
Glass transition temp.(T _g)	DSC	A	°C	175	148
	TMA			170	145
Thermal decomposition temp.(T _d)	TGA	A	°C	355	350
CTE z-axis	IPC-TM-650 2.4.24	A	ppm/°C	40	40
				180	180
T288(with copper)	IPC-TM-650 2.4.24.1	A	min	10	3
Peel strength	1oz(35 μm) IPC-TM-650 2.4.8	A	kN/m	1.6	1.8

The sample thickness is 0.8mm.

Our Halogen-free materials are based on JPCA-ES-01-2003 standard and others. 当社ハロゲンフリー材料は、JPCA-ES-01-2003 などの定義によるものです。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