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## RENESAS SEMICONDUCTOR RELIABILITY REPORT

APPLICATION: Standard

SERIES: CR12CS-16B-LD7

DEVICE: CR12CS-16B-T21#B00

Quality Assurance Div. Renesas Electronics Corporation

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## 1.RELIABILITY TEST

ITEM	TEST CONDITION	Test Results	
		NUMBER OF SAMPLES	NUMBER OF FAILURE
Soldering Heat	Reflow(250℃max, 230℃×30s, 1time)	22	0
Solderability	245℃, 5s (Solder wetting area 95% or more)	22	0
High Temperature Bias	Ta=150℃, V <sub>DRM</sub> =Maximum Rating (AC-peak), 1,000h	22	0
Continuous Operation	Tj=150℃, I <sub>T(AV)</sub> =Maximum Rating, 1,000h	22	0
High Temperature Storage Life	Ta=150℃, 1,000h	22	0
Temperature Humidity Storage	Ta=85℃, 85%RH, 1,000h	22	0
Temperature Cycle	Ta=-40 $^{\circ}$ to +150 $^{\circ}$ C, 200cycles	22	0
Electrostatic- Discharge(ESD)HBM	C=100pF, R=1.5k ohm, ±1,000V	3	0
Estimated failure rate	Estimated failure rate : 10Fit or less $\cdot$ Tj= 55°C $\cdot$ Ea = 0.7eV $\cdot$ C.L. = 60%		

Reliability test results may include data from family representative products.

<Judgement criteria>

Electrical characteristics described in the delivery specification.

(Solderability test is excluded.)

 $I_{RRM}$ ,  $I_{DRM}$ ,  $V_{TM}$ ,  $V_{GT}$ ,  $I_{GT}$ 

\*However,  $I_{GT}$  item free judgment.