

# RENESAS SEMICONDUCTOR RELIABILITY REPORT

APPLICATION: Standard

SERIES: CR12CS-16B-LD4

DEVICE: CR12CS-16B-T11#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℃ to +150℃, 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 ・Tj= 55℃ ・Ea = 0.7eV ・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 <sub>RRM</sub> , I <sub>DRM</sub> , V <sub>TM</sub> , V <sub>GT</sub> , I <sub>GT</sub> *However, I <sub>GT</sub> item free judgment.			