

Report No. APR-24-H0368
Date: Dec. 27, 2024

RENESAS SEMICONDUCTOR RELIABILITY REPORT

APPLICATION: Standard

SERIES: Thermal FET

DEVICE: Refer to Product List

Quality Assurance Div.
Renesas Electronics Corporation

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1.RELIABILITY TEST

ITEM	TEST CONDITION	Test Results (NUMBER OF FAILURE/NUMBER OF SAMPLES)
Soldering Heat	Bake:125℃, 24h Moisture Soak:85℃, 85%RH, 168h(JEDEC MSL1) Reflow:260℃max,255℃×30s, 3time	0/22
Solderability	245℃, 5s (Solder wetting area 95% or more)	0/22
High Temperature Reverse Bias	Tch=150℃, VDSS of Maximum Rating, 1,000h	0/22
High Temperature Storage Life	Ta=150℃, 1,000h	0/22
Temperature Humidity Bias	Ta=85℃, 85%RH, VDSS of Maximum Rating, 1,000h	0/22
Temperature Cycle	Ta=-55℃ to +150℃, 500cycles	0/22
Intermittent operating Life	ΔTc=100℃, 10kcycles	0/22
Electrostatic-Discharge(ESD)HBM	C=100pF, R=1.5kΩ, ±1,000V	0/3
Electrostatic-Discharge(ESD)CDM	±500V	0/3
Estimated failure rate	Estimated failure rate : 10Fit or less ・Tch= 55℃ ・Ea = 0.8eV ・C.L. = 60%	
Reliability test results may include data from family representative products. MSL Preconditioning was performed prior to TC & THB & IOL.		
<Judgement criteria> Electrical characteristics described in the delivery specification. (Solderability test is excluded.)		
<Preconditioning Details> 125℃, 24h→85℃, 85%RH, 168h(JEDEC MSL1)→Reflow(260℃max,255℃×30s, 3time)		

Product List

[illegible]