

**RELIABILITY MONITOR
STRESS TESTS
MODULES**

| <u>DEVICE</u> | <u>STRESS</u> | <u>DURATION</u> | <u>SAMPLE/C</u> | <u>CONDITIONS</u> | <u>NOTE</u> |
|---------------|--------------------------------|-----------------|-----------------|-------------------|---|
| All Modules* | Hi Temp Storage Life | 48 hours | 200/0 | 85°C / No Bias | Split Lots After Stress DS1225/30/DS12887 only |
| | Hi Temp Storage Life | 1000 hours | 20/0 | 70°C / No Bias | DS1643/DS5000T only |
| | Temperature Cycle | 1000 cycles | 100/0 | 0°C to 70°C | |
| | Temp Humidity Bias | 959 hours | 100/0 | 85°C/85% RH, 5.5V | DS12887 only |
| | Moisture Soak | 960 hours | 100/0 | 60°C/90% RH | DS1225/30/DS1643 & DS5000T only |
| | Package Integrity Tests | | | | |
| | Physical Dimensions | | 6/0 | | To Data Sheet Specs |
| | Solderability | 4 Hr. Steam Age | 3/0 | Solder = 245°C | 24 Leads Tested |

* DS5000T sample size is 15 pieces per each Storage Life, Temp. Cycle & Moisture Soak.

* DS1230 LPM and DS1643 sample sizes are 77 pieces each for Storage Life, Temp. Cycle & Moisture Soak.

RELIABILITY MONITOR STRESS TESTS

| <u>DEVICE</u> | <u>STRESS</u> | <u>DURATION</u> | <u>SAMPLE/C</u> | <u>CONDITIONS</u> | <u>NOTE</u> |
|---|-------------------------|-----------------|-----------------|---------------------------|-------------------------|
| Telecom PDIP only | Preconditioning #1 | | | | |
| | Temperature Cycle | 10 cycles | 231/0 | -55°C to +125°C | |
| | Infant Life | 48 hours | 231/0 | 125°C, 7.0 V | Split Lots After Stress |
| All Surface Mount Pkg's | Preconditioning #2 | | | | |
| | Bake | 24 hours | 231/0 | 125°C, no bias | |
| | Moisture Soak | Level 1 or 4 | 231/0 | Level 1 or 4 | See individual devices |
| | Vapor Phase Reflow | 3 passes | 231/0 | 230°C, +/- 10°C | To Infant Life |
| All IC's (Telecom sees infant life as part of P/C) | Infant Life | 48 hours | 231/0 | 125°C, 7.0 V | Split Lots After Stress |
| | High Voltage Life | 1000 hours | 77/0 | 125°C, 7.0 V | |
| | Hi Temp Storage Life | 1000 hours | 38/0 | 150°C, no bias | E/EEPROM only |
| | Temperature Cycle | 1000 cycles | 39/0 | -55°C to +125°C | |
| | Temp Humidity Bias | 959 hours | 77/0 | 85°C/85% RH, 5.5V | |
| | Temp Humidity Bias | 100 hours | 77/0 | 120°C/85% RH, 5.5V | 10 Device/Pkg Types |
| | Autoclave | 96 hours | 38/0 | 121°C, 2 Atms, no bias | All Except E/EEPROM |
| | Package Integrity Tests | | | | |
| | Ultrasound | | 2/0 | | All Surface Mount Pkg's |

RELIABILITY MONITOR
STRESS TESTS
SIPSTIK's

| <u>DEVICE</u> | <u>STRESS</u> | <u>DURATION</u> | <u>SAMPLE/C</u> | <u>CONDITIONS</u> | <u>NOTE</u> |
|---------------|----------------------|-----------------|-----------------|-------------------|-------------|
| All SipStiks | Hi Temp Storage Life | 1000 hours | 11/0 | 85°C | |
| | Temperature Cycle | 500 cycles | 11/0 | -40°C to +85°C | |
| | Moisture Soak | 384 hours | 11/0 | 60°C/90% RH | |

RELIABILITY MONITOR

STRESS TESTS

TOUCH CAN

| <u>DEVICE</u> | <u>STRESS</u> | <u>DURATION</u> | <u>SAMPLE/C</u> | <u>CONDITIONS</u> | <u>NOTE</u> |
|---------------|----------------------|-----------------|-----------------|-------------------|-------------|
| All Touch Can | Hi Temp Storage Life | 1000 hours | 30/0 | 70°C | |
| | Temperature Cycle | 1000 cycles | 30/0 | 0°C to +70°C | |
| | Moisture Soak | 960 hours | 30/0 | 60°C/90% RH | |