

Leaded / Through Hole Technology

EC,PK,VC,FC,TC (IRON CORE) and other similar types							
Environmental Tests	ltem	Required Characteristics	Test Method / Condition				
	High temperature Storage test Reference documents: MIL-STD-202G Method 108A	<ol> <li>No case should there be a deformation or change in appearance.</li> <li>△ L/L ≤10%</li> <li>△ Q/Q ≤30%</li> <li>△ DCR/DCR ≤10%</li> </ol>	Temp Room Temp 0 96H Test Time Temperature: N±2°C - Time : 96±2 hours Tested not less than 1 hr, or more than 2 hrs at room temperature				
	Low temperature Storage test Reference documents: IEC 68-2-1A 6.1 6.2	<ol> <li>No case should there be a deformation or change in appearance.</li> <li>△ L/L ≤10%</li> <li>△ Q/Q ≤30%</li> <li>△ DCR/DCR ≤10%</li> </ol>	Room Temp       O       John Hold         0       M       Low temperature         0       M       Test         0       M </td				
	Humidity test Reference documents: MIL-STD-202G Method 103B	<ol> <li>No case should there be a deformation or change in appearance.</li> <li>△ L/L ≤10%</li> <li>△ Q/Q ≤30%</li> <li>△ DCR/DCR ≤10%</li> </ol>	40°C       Temp&Humidity       Room Conditions         93%RH       High temperature       11         0       96H       Test         96H       Test       Time         Temperature:       40° ±2°C       Humidity:       93±3% RH         Tested not less than 1 hr, or more than 2 hrs at room temperature				
	Thermal shock test Reference documents: MIL-STD-202G Method 107G	1. No case should there be a deformation or change in appearance. 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$ 4. $\Delta DCR/DCR \leq 10\%$ For T: weight $\leq 28g$ : 15Min M $28g \leq weight \leq 136g$ : 30Min N	First M°C for (t) time, last N°C for (t) time as 1 cycle. Repeat through 20 cycles.				

## 3L Global Electronics Inc

Leaded / Through Hole

Technology

## Reliability And Testing Standards

EC,PK,	,PK,VC,FC,TC (IRON CORE) and other similar types						
Physical Characteristic Tests	ltem	Required Characteristics	Test Method / Condition				
	Solderability test Reference documents: MIL-STD-202G Method 208H IPC J-STD-002C	Terminal area must have 95% minimum Solder coverage	<ol> <li>Dip the pads in flux and then dip them in a solder pot at 260 ±5 °C for 5 seconds.</li> <li>Solder: Lead free</li> <li>Flux: Rosin flux</li> </ol>				
	Heat endurance of flow soldering Reference documents: MIL-STD-202G Method 210F	<ol> <li>No case should there be a deformation or change in appearance.</li> <li>Δ L/L ≤10%</li> <li>Δ Q/Q ≤30%</li> <li>Δ DCR/DCR ≤10%</li> </ol>	<ol> <li>Dip pads in flux then dip in solder pot at 260±5 K for 10 seconds.</li> <li>Solder: lead free</li> <li>Flux: rosin flux</li> </ol>				
	Vibration test Reference documents: MIL-STD-202G Method 201A	<ol> <li>No case should there be a deformation or change in appearance.</li> <li>Δ L/L ≤10%</li> <li>Δ Q/Q ≤30%</li> <li>Δ DCR/DCR ≤10%</li> </ol>	Apply frequency 10-55Hz. 1.5mm amplitude in each perpendicular direction for 2 hours.(total 6 hours)				
	Drop test Reference documents: MIL-STD-202G Method 203C	<ol> <li>No case should there be a deformation or change in appearance.</li> <li>△ L/L ≤10%</li> <li>△ Q/Q ≤30%</li> <li>△ DCR/DCR ≤10%</li> </ol>	Packaged & Dropped down from 1m with 981m/s (100G) attitude In 1 Angle,1 Ridge and 2 Surfaces orientations.				
	Terminal strength Reference documents: IEC 68-2-21:1992 Test A & C	<ol> <li>The Terminal should not come out or separate.</li> <li>Meet required test condition A&amp;C</li> <li>For: Wire-leaded components-Test A&amp;C</li> <li>For: Others leaded components-Test A</li> </ol>	<ul> <li>A. A Pull Force:0.45kg;the force shall be applied gradually to The terminal and then maintained for 10 seconds.</li> <li>C. Wire-lead bend:0.23kg.The rate of bending shall be Approximately 3 seconds per bend in each direction. The load shall be suspended at a point within 1/4 inch from the free end of the terminal.</li> </ul>				
	Resistance to solvent test Reference documents: IEC 68-2-45:1993	No case should there be a deformation or change in appearance or an obliteration of the marking	Dip parts into IPA solvent for $5\pm0.5$ Min,then dry them at room temp for 5 Min. Last, brush the marking 10 times.				

www.3LGlobal.com

Tel: 727-343-2679

Fax: 727-343-4410

## 3L Global Electronics Inc

## Leaded / Through Hole

Technology

EC,PK,VC,FC,TC (IRON CORE) and other similar types							
	ltem	Required Characteristics	Test Method / Condition				
al Characteristic Tests	Electronic characteristic test of major products	Refer to catalogue of specific products	Refer to catalogue of specific products				
	Overload test Reference documents: JIS C5311-6.13	<ol> <li>During the test there should be no smoke, no peculiar smell and no fire.</li> <li>The characteristic is normal after test</li> </ol>	Apply twice as rated current for 5 minutes.				
Electric	voltage resistance test Reference documents: MIL-STD-202G Method 301	1.During the test no breakdown 2.The characteristic is normal after test	Refer to product's specification				