

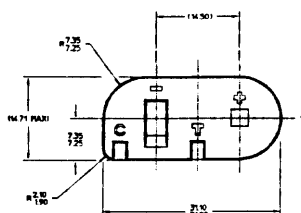
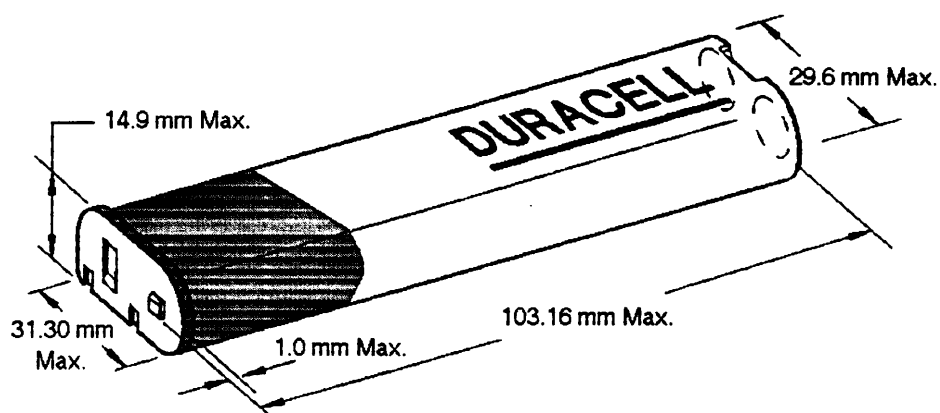
# DURACELL®

# SIZE DR121

## Nickel Metal Hydride Battery

### SPECIFICATIONS

Nominal Voltage:	4.8 V
Rated Capacity:	1200 mAh at C/5 to 4.0V
Average Weight:	115g
Average Volume:	42cm <sup>3</sup>



All dimensions in mm.

**DURACELL® Batteries.**

**Issue 61**

To be read in conjunction with the General Information module  
In line with its continuing development programme, Duracell reserves the right to alter specifications without prior notice

## Nickel Metal Hydride Battery

Nominal Voltage	4.8V															
Rated Capacity	1200mAh (charging at C/10 for 15 hours followed by discharging at C/5 to 4.0V, at 20°C). Minimum TBAmAh.															
Rated Energy Capacity	6.0WHrs (discharging at C/5 to 4.0V, followed by charging at C/10 for 15 hours, at 20°C).															
Operating Temperatures and Humidities	<i>Discharge:</i> -20°C to +50°C at 95%RH. <i>Charge:</i> 0°C to +45°C at 95%RH.															
Maximum Continuous Current	<i>Discharge:</i> 1C across the entire operating temperature range. <i>Charge:</i> 1C across the entire operating temperature range.															
Recommended Charge Regime	Main Charge: 1C to dT/dt @ 1°C / minute. Top Up Charge: C/10 for 30 minutes. Maintenance Charge: C/300, no time limit.															
No Load Voltage	5.6V, measured one hour after charging. 5.2V, measured two weeks after charging.															
On Load Voltage	4.8V on 2C after 10 seconds.															
DC Impedance <sup>†</sup>	0.673 ohms (max.), measured across the positive and negative terminals of a fully charged battery.															
AC Impedance	0.242 ohms (max), measured across the positive and negative terminals of a fully charged battery at 1000Hz.															
Thermistor Continuity	10000 ohms +/-TBA ohms, at 25°C, across the negative and thermistor (T) contacts.															
Typical Discharge Capacity verses Temperature <sup>*</sup>	<table border="1"> <thead> <tr> <th>Discharge Temp.</th> <th>+50°C</th> <th>+20°C</th> <th>0°C</th> <th>-20°C</th> </tr> </thead> <tbody> <tr> <td>Min. % Rated Capacity</td> <td>90</td> <td>97</td> <td>93</td> <td>86</td> </tr> <tr> <td>Typical % Rated Capacity</td> <td>97</td> <td>102</td> <td>100</td> <td>94</td> </tr> </tbody> </table>	Discharge Temp.	+50°C	+20°C	0°C	-20°C	Min. % Rated Capacity	90	97	93	86	Typical % Rated Capacity	97	102	100	94
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Min. % Rated Capacity	90	97	93	86												
Typical % Rated Capacity	97	102	100	94												
Typical Discharge Capacity verses Discharge Rate at 20°C	<table border="1"> <thead> <tr> <th>Discharge Rate</th> <th>C/10</th> <th>C/5</th> <th>1C</th> <th>2C</th> </tr> </thead> <tbody> <tr> <td>Min. % Rated Capacity</td> <td>97</td> <td>93</td> <td>72</td> <td>50</td> </tr> <tr> <td>Typical % Rated Capacity</td> <td>102</td> <td>100</td> <td>85</td> <td>65</td> </tr> </tbody> </table>	Discharge Rate	C/10	C/5	1C	2C	Min. % Rated Capacity	97	93	72	50	Typical % Rated Capacity	102	100	85	65
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Min. % Rated Capacity	97	93	72	50												
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Typical Self Discharge <sup>#</sup>	<table border="1"> <thead> <tr> <th>Storage temp.</th> <th>+45°C</th> <th>+20°C</th> <th>0°C</th> </tr> </thead> <tbody> <tr> <td>% Rated Capacity (14 days)</td> <td>40</td> <td>82</td> <td>93</td> </tr> <tr> <td>% Rated Capacity (28 days)</td> <td>17</td> <td>68</td> <td>88</td> </tr> </tbody> </table>	Storage temp.	+45°C	+20°C	0°C	% Rated Capacity (14 days)	40	82	93	% Rated Capacity (28 days)	17	68	88			
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Safety and Abuse	The batteries meet the requirements of UL2054															

<sup>†</sup> Charge at C/5 for 7.5 hours, at 20°C, followed by discharge at 1.5C for 10 minutes - the battery voltage and current shall be determined. Continue discharging at C/5 for 10 minutes - the battery voltage and current shall again be determined. The DC impedance is defined as the difference between the two voltages divide by the difference in currents.

<sup>\*</sup> Charge at C/5 for 7.5 hours, at 20°C, rest for 3 hours at the stated temperature, discharge at C/5 to 4.0V.

<sup>#</sup> Charge at C/5 for 7.5 hours, at 20°C, rest for 3 hours, discharge at C/5 to 4.0V, following 14 and 28 days storage on open circuit.