

## ERTJ0ET152J R-T Characteristics

(for reference)

$$R_{25} = 1.5 \text{ kohm } \pm 5\%$$

$$B_{25/50} = 4500 \text{ K } \pm 2\%$$

| Temp.    | Resistance (kohm) |              |              | Temp.    | Resistance (kohm) |               |               | Temp.    | Resistance (kohm) |                |                |
|----------|-------------------|--------------|--------------|----------|-------------------|---------------|---------------|----------|-------------------|----------------|----------------|
| T(deg.C) | R min.            | R cen.       | R max.       | T(deg.C) | R min.            | R cen.        | R max.        | T(deg.C) | R min.            | R cen.         | R max.         |
| -40      | 83.02             | 94.94        | 108.3        | 25       | 1.425             | 1.500         | 1.575         | 90       | 0.09158           | 0.1017         | 0.1127         |
| -39      | 76.85             | 87.75        | 99.95        | 26       | 1.354             | 1.426         | 1.499         | 91       | 0.08852           | 0.09840        | 0.1091         |
| -38      | 71.17             | 81.14        | 92.28        | 27       | 1.286             | 1.357         | 1.427         | 92       | 0.08558           | 0.09520        | 0.1056         |
| -37      | 65.95             | 75.08        | 85.25        | 28       | 1.223             | 1.291         | 1.359         | 93       | 0.08276           | 0.09211        | 0.1023         |
| -36      | 61.15             | 69.50        | 78.80        | 29       | 1.163             | 1.229         | 1.295         | 94       | 0.08004           | 0.08915        | 0.09904        |
| -35      | <b>56.73</b>      | <b>64.38</b> | <b>72.87</b> | 30       | <b>1.106</b>      | <b>1.170</b>  | <b>1.234</b>  | 95       | <b>0.07743</b>    | <b>0.08629</b> | <b>0.09593</b> |
| -34      | 52.65             | 59.66        | 67.43        | 31       | 1.052             | 1.114         | 1.177         | 96       | 0.07492           | 0.08355        | 0.09294        |
| -33      | 48.90             | 55.32        | 62.43        | 32       | 1.001             | 1.061         | 1.122         | 97       | 0.07250           | 0.08090        | 0.09006        |
| -32      | 45.43             | 51.32        | 57.84        | 33       | 0.9534            | 1.012         | 1.071         | 98       | 0.07017           | 0.07836        | 0.08728        |
| -31      | 42.23             | 47.64        | 53.60        | 34       | 0.9081            | 0.9643        | 1.022         | 99       | 0.06794           | 0.07591        | 0.08460        |
| -30      | <b>39.28</b>      | <b>44.24</b> | <b>49.71</b> | 35       | <b>0.8651</b>     | <b>0.9196</b> | <b>0.9751</b> | 100      | <b>0.06578</b>    | <b>0.07355</b> | <b>0.08202</b> |
| -29      | 36.55             | 41.11        | 46.12        | 36       | 0.8244            | 0.8772        | 0.9310        | 101      | 0.06371           | 0.07127        | 0.07954        |
| -28      | 34.03             | 38.22        | 42.81        | 37       | 0.7859            | 0.8370        | 0.8891        | 102      | 0.06171           | 0.06908        | 0.07714        |
| -27      | 31.70             | 35.55        | 39.76        | 38       | 0.7494            | 0.7988        | 0.8494        | 103      | 0.05978           | 0.06697        | 0.07483        |
| -26      | 29.54             | 33.08        | 36.95        | 39       | 0.7148            | 0.7627        | 0.8117        | 104      | 0.05793           | 0.06493        | 0.07260        |
| -25      | <b>27.54</b>      | <b>30.79</b> | <b>34.35</b> | 40       | <b>0.6820</b>     | <b>0.7284</b> | <b>0.7759</b> | 105      | <b>0.05614</b>    | <b>0.06297</b> | <b>0.07044</b> |
| -24      | 25.78             | 28.79        | 32.07        | 41       | 0.6509            | 0.6958        | 0.7419        | 106      | 0.05442           | 0.06107        | 0.06837        |
| -23      | 24.04             | 26.80        | 29.81        | 42       | 0.6214            | 0.6649        | 0.7096        | 107      | 0.05276           | 0.05925        | 0.06636        |
| -22      | 22.42             | 24.96        | 27.73        | 43       | 0.5934            | 0.6355        | 0.6788        | 108      | 0.05116           | 0.05748        | 0.06443        |
| -21      | 20.92             | 23.27        | 25.81        | 44       | 0.5668            | 0.6076        | 0.6496        | 109      | 0.04962           | 0.05578        | 0.06256        |
| -20      | <b>19.54</b>      | <b>21.69</b> | <b>24.03</b> | 45       | <b>0.5416</b>     | <b>0.5810</b> | <b>0.6218</b> | 110      | <b>0.04813</b>    | <b>0.05414</b> | <b>0.06075</b> |
| -19      | 18.26             | 20.25        | 22.40        | 46       | 0.5176            | 0.5558        | 0.5953        | 111      | 0.04669           | 0.05256        | 0.05901        |
| -18      | 17.08             | 18.91        | 20.89        | 47       | 0.4949            | 0.5318        | 0.5701        | 112      | 0.04531           | 0.05103        | 0.05733        |
| -17      | 15.98             | 17.67        | 19.49        | 48       | 0.4732            | 0.5090        | 0.5461        | 113      | 0.04397           | 0.04955        | 0.05570        |
| -16      | 14.96             | 16.52        | 18.20        | 49       | 0.4526            | 0.4873        | 0.5233        | 114      | 0.04268           | 0.04813        | 0.05413        |
| -15      | <b>14.00</b>      | <b>15.45</b> | <b>16.99</b> | 50       | <b>0.4331</b>     | <b>0.4666</b> | <b>0.5016</b> | 115      | <b>0.04144</b>    | <b>0.04675</b> | <b>0.05261</b> |
| -14      | 13.12             | 14.45        | 15.87        | 51       | 0.4145            | 0.4470        | 0.4808        | 116      | 0.04023           | 0.04542        | 0.05114        |
| -13      | 12.29             | 13.52        | 14.84        | 52       | 0.3967            | 0.4282        | 0.4610        | 117      | 0.03907           | 0.04413        | 0.04973        |
| -12      | 11.52             | 12.66        | 13.87        | 53       | 0.3798            | 0.4103        | 0.4421        | 118      | 0.03795           | 0.04289        | 0.04835        |
| -11      | 10.81             | 11.86        | 12.98        | 54       | 0.3637            | 0.3932        | 0.4241        | 119      | 0.03687           | 0.04169        | 0.04703        |
| -10      | <b>10.14</b>      | <b>11.11</b> | <b>12.14</b> | 55       | <b>0.3484</b>     | <b>0.3770</b> | <b>0.4069</b> | 120      | <b>0.03582</b>    | <b>0.04053</b> | <b>0.04574</b> |
| -9       | 9.519             | 10.42        | 11.37        | 56       | 0.3338            | 0.3615        | 0.3905        | 121      | 0.03481           | 0.03941        | 0.04450        |
| -8       | 8.939             | 9.769        | 10.65        | 57       | 0.3198            | 0.3467        | 0.3748        | 122      | 0.03383           | 0.03832        | 0.04330        |
| -7       | 8.399             | 9.167        | 9.980        | 58       | 0.3066            | 0.3326        | 0.3599        | 123      | 0.03288           | 0.03727        | 0.04214        |
| -6       | 7.894             | 8.605        | 9.357        | 59       | 0.2939            | 0.3191        | 0.3456        | 124      | 0.03197           | 0.03625        | 0.04101        |
| -5       | <b>7.424</b>      | <b>8.082</b> | <b>8.777</b> | 60       | <b>0.2819</b>     | <b>0.3063</b> | <b>0.3320</b> | 125      | <b>0.03109</b>    | <b>0.03527</b> | <b>0.03992</b> |
| -4       | 6.984             | 7.594        | 8.237        | 61       | 0.2704            | 0.2941        | 0.3190        |          |                   |                |                |
| -3       | 6.574             | 7.139        | 7.734        | 62       | 0.2595            | 0.2824        | 0.3066        |          |                   |                |                |
| -2       | 6.191             | 6.715        | 7.265        | 63       | 0.2491            | 0.2713        | 0.2948        |          |                   |                |                |
| -1       | 5.833             | 6.319        | 6.829        | 64       | 0.2391            | 0.2607        | 0.2835        |          |                   |                |                |
| 0        | <b>5.498</b>      | <b>5.949</b> | <b>6.421</b> | 65       | <b>0.2297</b>     | <b>0.2506</b> | <b>0.2727</b> |          |                   |                |                |
| 1        | 5.185             | 5.604        | 6.041        | 66       | 0.2207            | 0.2409        | 0.2624        |          |                   |                |                |
| 2        | 4.892             | 5.281        | 5.686        | 67       | 0.2120            | 0.2317        | 0.2526        |          |                   |                |                |
| 3        | 4.617             | 4.978        | 5.354        | 68       | 0.2038            | 0.2229        | 0.2432        |          |                   |                |                |
| 4        | 4.359             | 4.695        | 5.043        | 69       | 0.1960            | 0.2145        | 0.2342        |          |                   |                |                |
| 5        | <b>4.118</b>      | <b>4.430</b> | <b>4.753</b> | 70       | <b>0.1886</b>     | <b>0.2065</b> | <b>0.2256</b> |          |                   |                |                |
| 6        | 3.891             | 4.181        | 4.481        | 71       | 0.1815            | 0.1989        | 0.2174        |          |                   |                |                |
| 7        | 3.679             | 3.948        | 4.226        | 72       | 0.1747            | 0.1916        | 0.2096        |          |                   |                |                |
| 8        | 3.479             | 3.729        | 3.988        | 73       | 0.1682            | 0.1846        | 0.2021        |          |                   |                |                |
| 9        | 3.291             | 3.524        | 3.764        | 74       | 0.1620            | 0.1779        | 0.1950        |          |                   |                |                |
| 10       | <b>3.115</b>      | <b>3.332</b> | <b>3.555</b> | 75       | <b>0.1560</b>     | <b>0.1715</b> | <b>0.1881</b> |          |                   |                |                |
| 11       | 2.949             | 3.151        | 3.358        | 76       | 0.1504            | 0.1654        | 0.1815        |          |                   |                |                |
| 12       | 2.794             | 2.981        | 3.174        | 77       | 0.1449            | 0.1596        | 0.1752        |          |                   |                |                |
| 13       | 2.647             | 2.822        | 3.000        | 78       | 0.1397            | 0.1539        | 0.1692        |          |                   |                |                |
| 14       | 2.509             | 2.672        | 2.838        | 79       | 0.1348            | 0.1486        | 0.1634        |          |                   |                |                |
| 15       | <b>2.379</b>      | <b>2.530</b> | <b>2.685</b> | 80       | <b>0.1300</b>     | <b>0.1434</b> | <b>0.1578</b> |          |                   |                |                |
| 16       | 2.257             | 2.398        | 2.541        | 81       | 0.1254            | 0.1384        | 0.1525        |          |                   |                |                |
| 17       | 2.141             | 2.273        | 2.406        | 82       | 0.1210            | 0.1337        | 0.1473        |          |                   |                |                |
| 18       | 2.032             | 2.155        | 2.279        | 83       | 0.1168            | 0.1291        | 0.1424        |          |                   |                |                |
| 19       | 1.930             | 2.044        | 2.160        | 84       | 0.1127            | 0.1247        | 0.1376        |          |                   |                |                |
| 20       | <b>1.833</b>      | <b>1.940</b> | <b>2.047</b> | 85       | <b>0.1088</b>     | <b>0.1205</b> | <b>0.1331</b> |          |                   |                |                |
| 21       | 1.742             | 1.841        | 1.941        | 86       | 0.1051            | 0.1164        | 0.1287        |          |                   |                |                |
| 22       | 1.656             | 1.748        | 1.841        | 87       | 0.1015            | 0.1125        | 0.1245        |          |                   |                |                |
| 23       | 1.574             | 1.661        | 1.747        | 88       | 0.09807           | 0.1088        | 0.1204        |          |                   |                |                |
| 24       | 1.498             | 1.578        | 1.659        | 89       | 0.09476           | 0.1052        | 0.1165        |          |                   |                |                |
| 25       | <b>1.425</b>      | <b>1.500</b> | <b>1.575</b> | 90       | <b>0.09158</b>    | <b>0.1017</b> | <b>0.1127</b> |          |                   |                |                |