

Comparison sheet for thermal cutoffs of contain Pb and Pb free type

Axial type

K type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | K06F         | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | —            | —       | —                             | —       |
| —            | —       | —                           | —       | —            | —       | —            | —       | —                             | —       |
| K09          | 98      | —                           | —       | —            | —       | —            | —       | —                             | —       |
| K10          | 102     | 441                         | 102     | SM095G0      | 100     | K2F          | 102     | 44E                           | 108     |
| K11          | 115     | 442                         | 115     | SM110G0      | 115     | K3F          | 115     | 442                           | 115     |
| K12          | 130     | 443                         | 130     | SM126G0      | 131     | K4F          | 127     | —                             | —       |
| K13          | 133     | 444                         | 133     | —            | —       | K13F         | 133     | 44X                           | 133     |
|              |         | —                           | —       | SM130G0      | 135     | K5F          | 136     | —                             | —       |
| K14          | 150     | 445                         | 150     | SM150G0      | 150     | K7F          | 145     | 44K                           | 150     |
| K18          | 187     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| K19          | 139     | 448                         | 139     | —            | —       | K6F          | 139     | 47M                           | 139     |

VS type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | T06F         | 65      | —                             | —       |
| VS07         | 76      | 320                         | 76      | —            | —       | T0F          | 76      | 32Y                           | 76      |
| VS08         | 86      | —                           | —       | —            | —       | T1F          | 86      | —                             | —       |
| VS09         | 98      | —                           | —       | —            | —       | —            | —       | —                             | —       |
| VS10         | 103     | 321                         | 102     | SM095B0      | 100     | T2F          | 102     | 32E                           | 108     |
| VS11         | 117     | 322                         | 115     | SM110B0      | 115     | T3F          | 115     | 322                           | 115     |
| VS12         | 128     | —                           | —       | —            | —       | T4F          | 127     | —                             | —       |
| VS22         | 130     | 323                         | 130     | SM126B0      | 131     | T13F         | 133     | 32X                           | 133     |
|              |         | 324                         | 133     |              |         |              |         |                               |         |
| VS13         | 136     | —                           | —       | SM130B0      | 135     | T5F          | 136     | —                             | —       |
| VS14         | 150     | 325                         | 150     | SM150B0      | 150     | T7F          | 145     | 32J                           | 145     |
| VS16         | 169     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| VS18         | 187     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| VS19         | 139     | 328                         | 139     | —            | —       | T6F-T6D      | 139     | 32M                           | 139     |

### V type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | V06F         | 65      | 12G                           | 65      |
| V076         | 76      | 120                         | 76      | SM085A0      | 70      | V0F          | 76      | 12Y                           | 76      |
| V086         | 86      | —                           | —       | —            | —       | V1F          | 86      | —                             | —       |
| V100         | 103     | 121                         | 102     | SM095A0      | 100     | V2F          | 102     | 12E                           | 108     |
| V110         | 117     | 122                         | 115     | SM110A0      | 115     | V3F          | 115     | 122                           | 115     |
| V125         | 131     | 123                         | 130     | SM126A0      | 131     | V4F          | 127     | —                             | —       |
|              |         | 124                         | 133     | —            | —       | V13F         | 133     | 12X                           | 133     |
| V130         | 135     | —                           | —       | SM130A0      | 135     | V5F          | 136     | —                             | —       |
| V145         | 150     | 125                         | 150     | SM145A0      | 150     | V7F          | 145     | 12J                           | 145     |
| V169         | 169     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| V187         | 187     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| V135         | 139     | —                           | —       | —            | —       | V8F          | 139     | 12M                           | 139     |

### Y type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | Y08F         | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | Y0F          | 76      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | Y1F          | 86      | —                             | —       |
| Y2           | 103     | —                           | —       | —            | —       | Y2F          | 102     | —                             | —       |
| Y3           | 117     | —                           | —       | —            | —       | Y3F          | 115     | —                             | —       |
| Y4           | 128     | —                           | —       | —            | —       | Y4F          | 127     | —                             | —       |
|              |         | —                           | —       | —            | —       | Y13F         | 133     | —                             | —       |
| Y5           | 136     | —                           | —       | —            | —       | Y5F          | 136     | —                             | —       |
| Y7           | 150     | —                           | —       | —            | —       | Y7F          | 145     | —                             | —       |
| Y8           | 169     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| Y9           | 187     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| Y6           | 139     | —                           | —       | —            | —       | Y6F          | 139     | —                             | —       |

L type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | L06F         | 85      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | —            | —       | 22YR                          | 76      |
| L1           | 84      | —                           | —       | —            | —       | —            | —       | —                             | —       |
| L2           | 102     | 221R                        | 102     | —            | —       | —            | —       | 22ER                          | 108     |
| L3           | 115     | 222R                        | 115     | —            | —       | L3F          | 115     | —                             | —       |
| L4           | 130     | 223R                        | 130     | —            | —       | —            | —       | —                             | —       |
| L5           | 133     | 224R                        | 133     | —            | —       | —            | —       | 22XR                          | 133     |
| —            | —       | 228R                        | 139     | —            | —       | L6F          | 139     | 22MR                          | 139     |
| L7           | 150     | 225R                        | 150     | —            | —       | L7F          | 145     | 22JR                          | 145     |
| L8           | 169     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| L9           | 187     | —                           | —       | —            | —       | —            | —       | —                             | —       |

Axial type [Thermal cutoffs suitable for board mounting]

KP type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | K06X         | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | K0X          | 76      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | K1X          | 86      | —                             | —       |
| KP10         | 102     | —                           | —       | —            | —       | K2X          | 102     | —                             | —       |
| KP11         | 115     | —                           | —       | —            | —       | K3X          | 115     | —                             | —       |
| KP12         | 130     | —                           | —       | —            | —       | K4X          | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | K13X         | 133     | —                             | —       |
| KP13         | 133     | —                           | —       | —            | —       | K5X          | 136     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | K6X          | 139     | —                             | —       |
| KP14         | 150     | —                           | —       | —            | —       | K7X          | 145     | —                             | —       |

P type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | T06X         | 65      | —                             | —       |
| P07          | 76      | —                           | —       | —            | —       | T0X          | 76      | —                             | —       |
| P08          | 86      | —                           | —       | —            | —       | T1X          | 86      | —                             | —       |
| P10          | 103     | —                           | —       | —            | —       | T2X          | 102     | —                             | —       |
| P11          | 117     | —                           | —       | —            | —       | T3X          | 115     | —                             | —       |
| P12          | 128     | —                           | —       | —            | —       | T4X          | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | T13X         | 133     | —                             | —       |
| P13          | 136     | —                           | —       | —            | —       | T5X          | 136     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | T6X          | 139     | —                             | —       |
| P14          | 150     | —                           | —       | —            | —       | T7X          | 145     | —                             | —       |

Radial type

N type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEG          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | N06F         | 65      | —                             | —       |
| N0           | 76      | —                           | —       | —            | —       | N0F          | 76      | —                             | —       |
| N1           | 86      | —                           | —       | —            | —       | N1F          | 86      | —                             | —       |
| N2           | 103     | S1                          | 102     | —            | —       | N2F          | 102     | SE                            | 108     |
| N3           | 117     | S2                          | 115     | —            | —       | N3F          | 115     | S2                            | 115     |
| N4           | 127     | —                           | —       | —            | —       | N4F          | 127     | —                             | —       |
| N44          | 130     | S3                          | 130     | —            | —       | N13F         | 133     | —                             | —       |
| N5           | 136     | S4                          | 133     | —            | —       | N5F          | 136     | SX                            | 133     |
| —            | —       | —                           | —       | —            | —       | N6F          | 139     | —                             | —       |
| N6           | 140     | —                           | —       | —            | —       | N7F          | 145     | —                             | —       |
| N7           | 150     | S5                          | 150     | —            | —       | —            | —       | SJ                            | 145     |
| N8           | 169     | —                           | —       | —            | —       | —            | —       | —                             | —       |

H type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEG          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | H06F         | 65      | —                             | —       |
| H076         | 76      | —                           | —       | —            | —       | H0F          | 76      | —                             | —       |
| H086         | 86      | —                           | —       | —            | —       | H1F          | 86      | —                             | —       |
| H100         | 103     | U21                         | 102     | —            | —       | H2F          | 102     | U2E                           | 108     |
| H110         | 117     | U22                         | 115     | —            | —       | H3F          | 115     | U22                           | 115     |
| H125         | 127     | U23                         | 130     | —            | —       | H4F          | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | H13F         | 133     | —                             | —       |
| H130         | 136     | U24                         | 133     | —            | —       | H5F          | 136     | U2X                           | 133     |
| —            | —       | —                           | —       | —            | —       | H6F          | 139     | —                             | —       |
| H135         | 140     | —                           | —       | —            | —       | H7F          | 145     | —                             | —       |
| H145         | 150     | U25                         | 150     | —            | —       | —            | —       | U2J                           | 145     |
| H160         | 165     | —                           | —       | —            | —       | —            | —       | —                             | —       |
| H169         | 169     | —                           | —       | —            | —       | —            | —       | —                             | —       |

E type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | E06F         | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | E0F          | 76      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | E1F          | 86      | —                             | —       |
| E2           | 103     | X21                         | 102     | —            | —       | E2F          | 102     | X2E                           | 108     |
| E3           | 117     | X22                         | 115     | —            | —       | E3F          | 115     | X22                           | 115     |
| E4           | 127     | X23                         | 130     | —            | —       | E4F          | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | E13F         | 133     | —                             | —       |
| E5           | 136     | X24                         | 133     | —            | —       | E5F          | 136     | X2X                           | 133     |
| —            | —       | —                           | —       | —            | —       | E6F          | 139     | —                             | —       |
| E7           | 150     | X25                         | 150     | —            | —       | E7F          | 145     | —                             | —       |
| E8           | 169     | —                           | —       | —            | —       | —            | —       | —                             | —       |

H-A type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | HU06F        | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | HU0F         | 76      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | HU1F         | 86      | —                             | —       |
| H100A        | 103     | —                           | —       | —            | —       | HU2F         | 102     | —                             | —       |
| H110A        | 117     | —                           | —       | —            | —       | HU3F         | 115     | —                             | —       |
| H125A        | 127     | —                           | —       | —            | —       | HU4F         | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | HU13F        | 133     | —                             | —       |
| H130A        | 136     | —                           | —       | —            | —       | HU5F         | 136     | —                             | —       |
| H135A        | 140     | —                           | —       | —            | —       | HU6F         | 139     | —                             | —       |
| H145A        | 150     | —                           | —       | —            | —       | HU7F         | 145     | —                             | —       |

Radial type [Thermal cutoffs suitable for board mounting]

**NP type**

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | N06X         | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | N0X          | 76      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | N1X          | 86      | —                             | —       |
| NP2          | 103     | —                           | —       | —            | —       | N2X          | 102     | —                             | —       |
| NP3          | 117     | —                           | —       | —            | —       | N3X          | 115     | —                             | —       |
| NP4          | 127     | —                           | —       | —            | —       | N4X          | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | N13X         | 133     | —                             | —       |
| NP5          | 136     | —                           | —       | —            | —       | N5X          | 136     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | N6X          | 139     | —                             | —       |
| NP7          | 150     | —                           | —       | —            | —       | N7X          | 145     | —                             | —       |

**P100 type**

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | H06X         | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | H0X          | 76      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | H1X          | 86      | —                             | —       |
| P100         | 103     | —                           | —       | —            | —       | H2X          | 102     | —                             | —       |
| P110         | 117     | —                           | —       | —            | —       | H3X          | 115     | —                             | —       |
| P125         | 127     | —                           | —       | —            | —       | H4X          | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | H13X         | 133     | —                             | —       |
| P130         | 136     | —                           | —       | —            | —       | H5X          | 136     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | H6X          | 139     | —                             | —       |
| P145         | 150     | —                           | —       | —            | —       | H7X          | 145     | —                             | —       |

EP type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | E06X         | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | E0X          | 76      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | E1X          | 86      | —                             | —       |
| EP2          | 103     | —                           | —       | —            | —       | E2X          | 102     | —                             | —       |
| EP3          | 117     | —                           | —       | —            | —       | E3X          | 115     | —                             | —       |
| EP4          | 127     | —                           | —       | —            | —       | E4X          | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | E13X         | 133     | —                             | —       |
| EP5          | 136     | —                           | —       | —            | —       | E5X          | 136     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | E6X          | 139     | —                             | —       |
| EP7          | 150     | —                           | —       | —            | —       | E7X          | 145     | —                             | —       |

P-A type

| Contain Pb   |         | Contain Pb of other company |         |              |         | Pb free type |         | Pb free type of other company |         |
|--------------|---------|-----------------------------|---------|--------------|---------|--------------|---------|-------------------------------|---------|
| Anzendengu   |         | Uchihashi                   |         | NEC          |         | Anzendengu   |         | Uchihashi                     |         |
| Product Name | Tf [°C] | Product Name                | Tf [°C] | Product Name | Tf [°C] | Product Name | Tf [°C] | Product Name                  | Tf [°C] |
| —            | —       | —                           | —       | —            | —       | HU06X        | 65      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | HU0X         | 76      | —                             | —       |
| —            | —       | —                           | —       | —            | —       | HU1X         | 86      | —                             | —       |
| P100A        | 103     | —                           | —       | —            | —       | HU2X         | 102     | —                             | —       |
| P110A        | 117     | —                           | —       | —            | —       | HU3X         | 115     | —                             | —       |
| P125A        | 127     | —                           | —       | —            | —       | HU4X         | 127     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | HU13X        | 133     | —                             | —       |
| P130A        | 136     | —                           | —       | —            | —       | HU5X         | 136     | —                             | —       |
| —            | —       | —                           | —       | —            | —       | HU6X         | 139     | —                             | —       |
| P145A        | 150     | —                           | —       | —            | —       | HU7X         | 145     | —                             | —       |