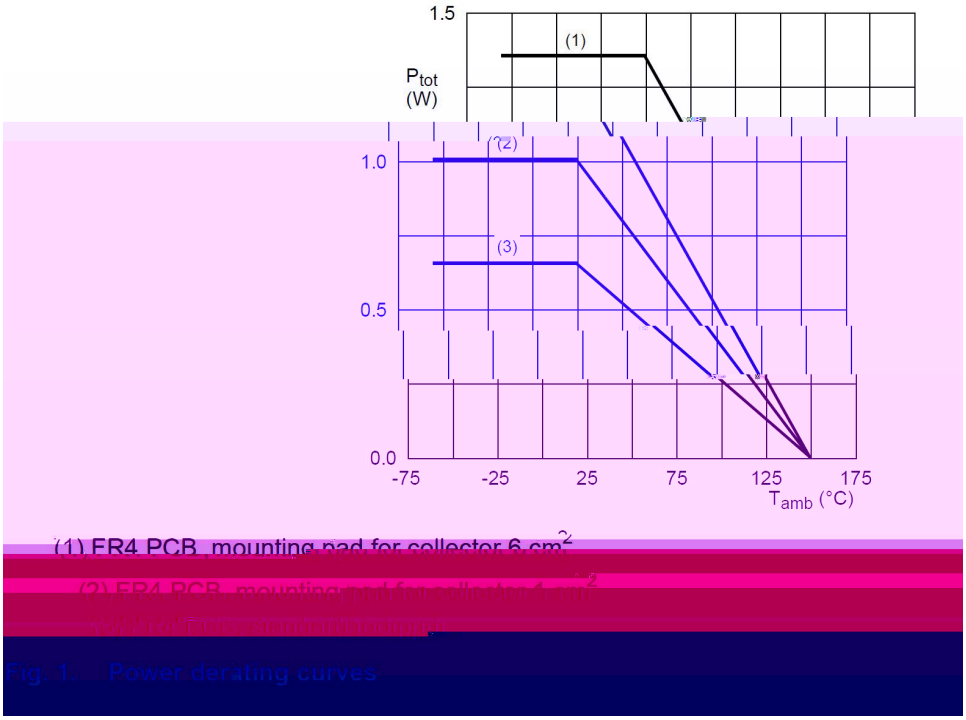
SOT-223

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | -180 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | -140 | V |
| Emitter to Base Voltage | $V_{EBO}$ | -7.0 | V |
| Collector Current - Continuous | I | | |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=-150 V $I_E$=0A<br>$T_{amb}$ = 25 °C | | | -100 | nA |
| | | $V_{CB}$=-150 V $I_E$=0A<br>$T_j$ = 150 °C | | | -50 | uA |
| Collector-emitter cut-off current | $I_{CES}$ | $V_{CE}$ = -115 V $V_{BE}$ = 0V<br>$T_{amb}$ = 25 °C | | | -100 | nA |
| Emitter-base cut-off current | $I_{EBO}$ | $V_{EB}$ = -6 V $I_C$ = 0 A<br>$T_{amb}$ = 25 °C | | | -100 | nA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}$=-5.0V $I_C$ = -10mA<br>$T_{amb}$ = 25 °C | 100 | 160 | | |
| | $h_{FE(2)}$ | $V_{CE}$ = -5 V $I_C$ = -1A<br>tp 300 s 0.02<br>$T_{amb}$ = 25 C | 100 | 150 | 300 | |
| | $h_{FE(3)}$ | $V_{CE}$ = -5 V $I_C$ = -3A<br>tp 300 s 0.02<br>$T_{amb}$ = 25 C | 75 | 100 | | |
| | $h_{FE(4)}$ | $V_{CE}$ = -5 V $I_C$ = -4A<br>tp 300 s 0.02<br>$T_{amb}$ = 25 C | 35 | 50 | | |

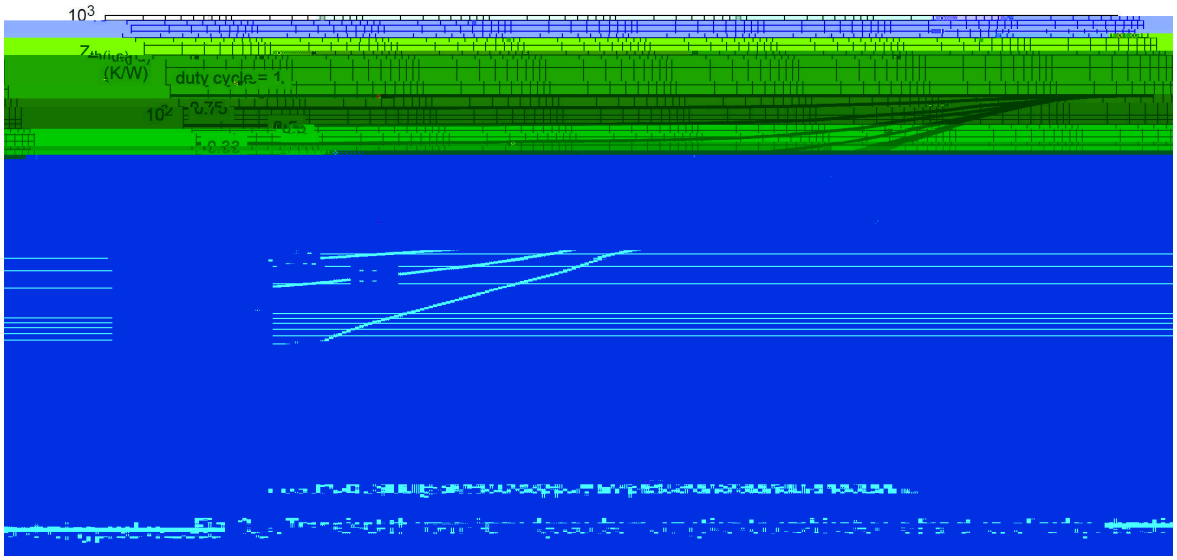
| | |
|---|---|
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ |

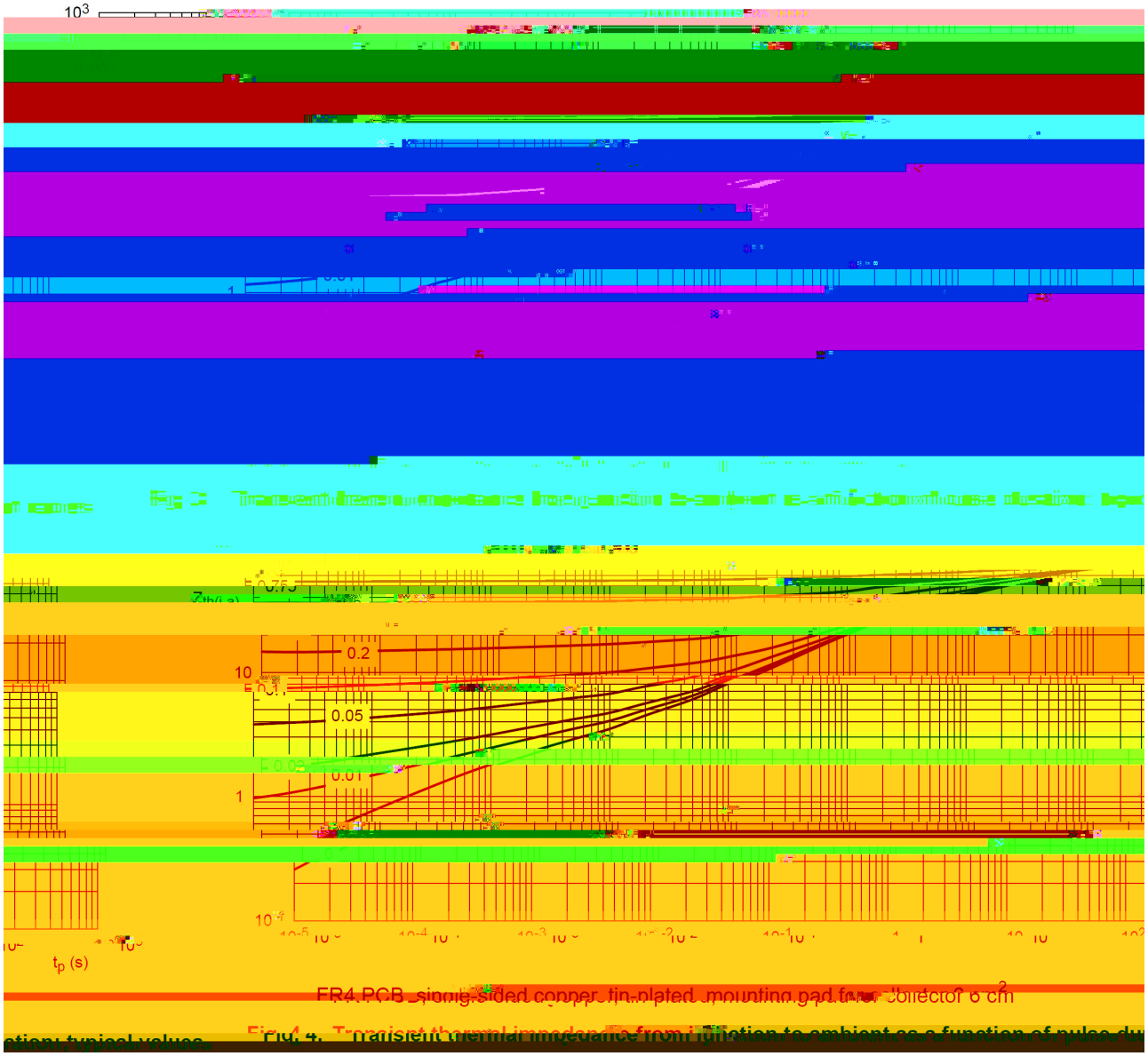


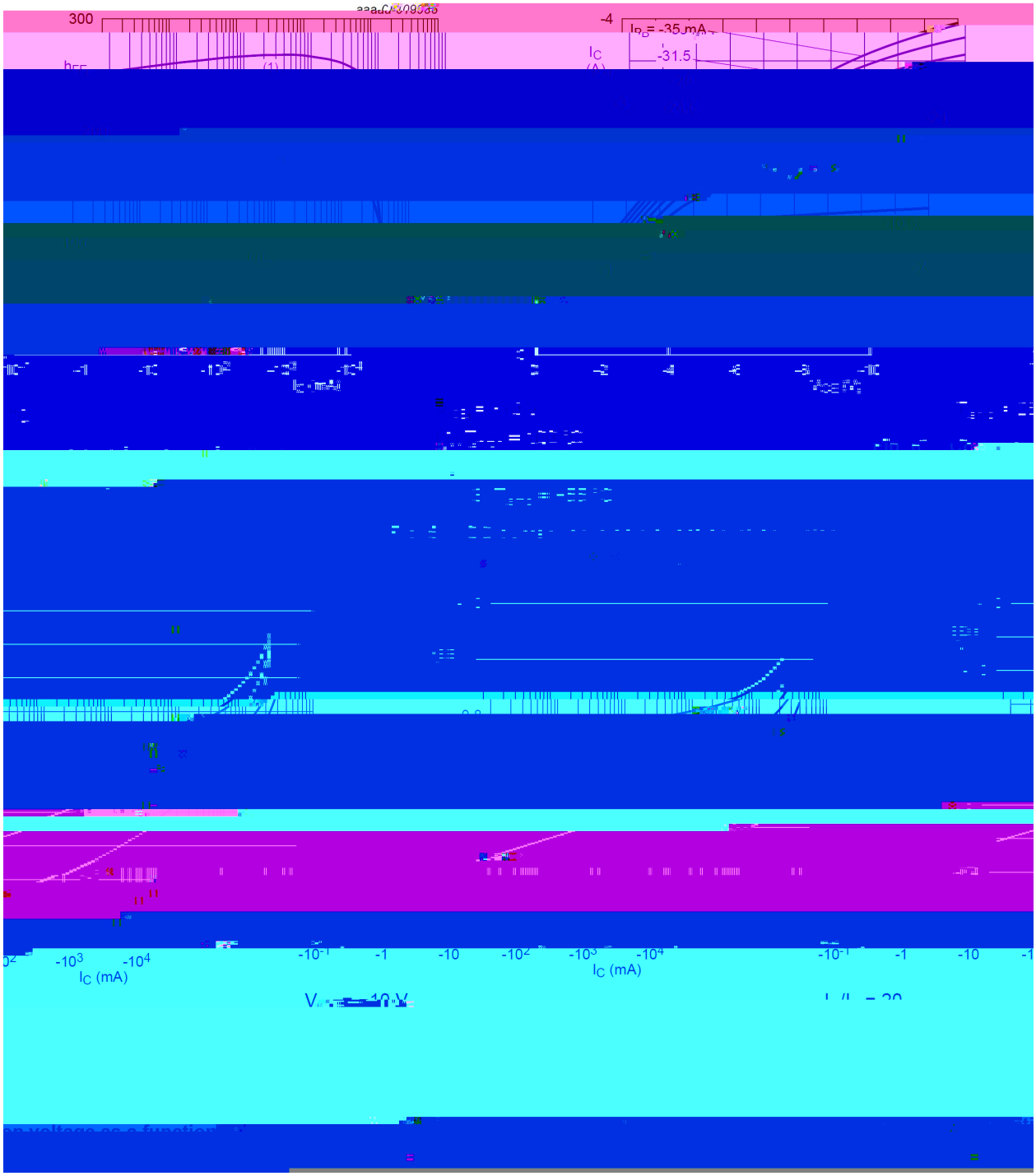

(1) FR4 PCB, mounting pad for collector 6 cm$^2$

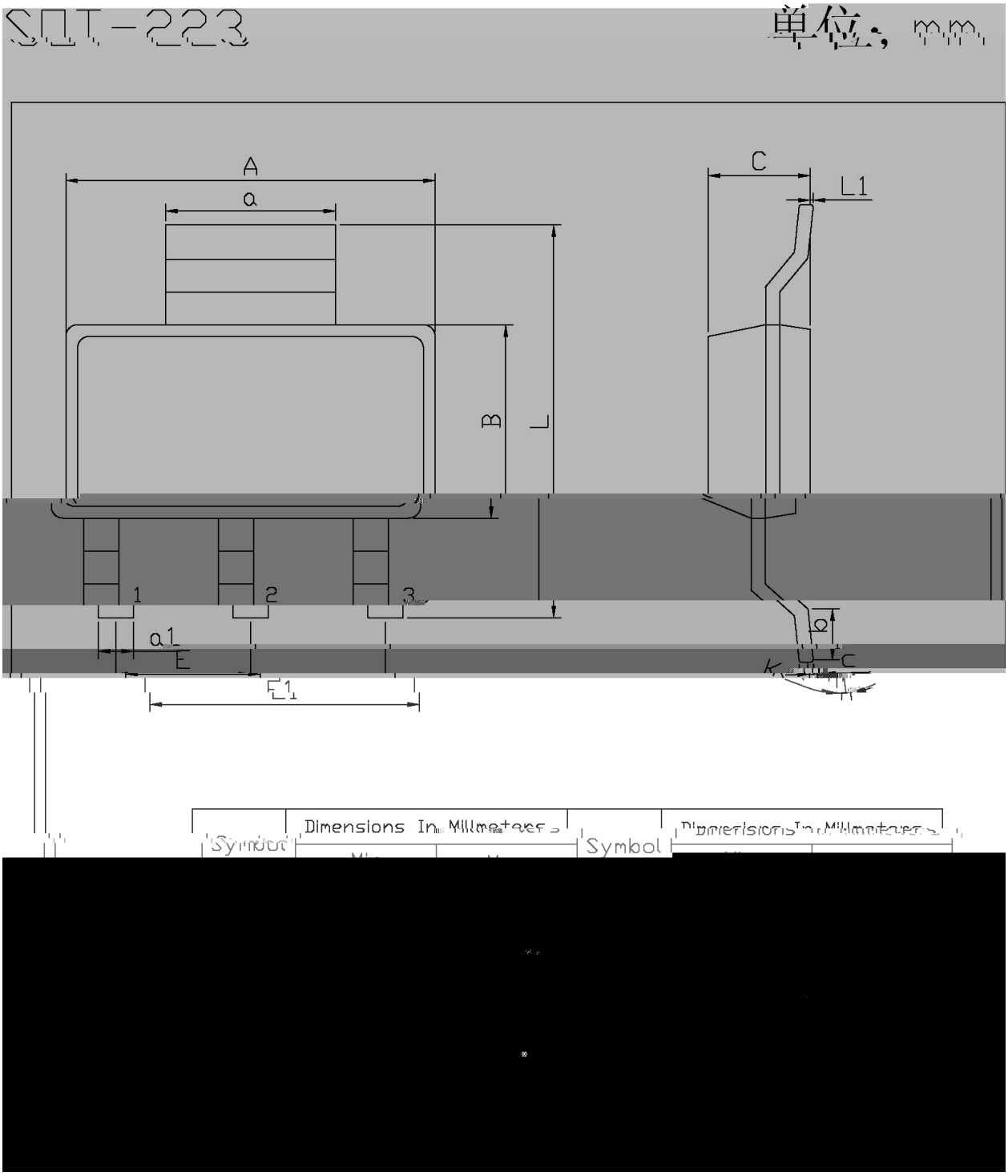
(2) FR4 PCB, mounting pad for collector 1 cm$^2$

Fig. 1 Power derating curves




10^3
10
1
0.2
0.05
0.01
t_p (s)


300
-4
-31.5
$I_C$ (mA)
$V_{CE}$ (V)
$I_C$ (mA)
$I_C$ (mA)


SOT-223
单位：mm
A
a
B
L
C
L1
1
2
3
a1
E
e1
Dimensions In Millimeters
Symbol
Dimensions In Millimeters
Symbol




BR

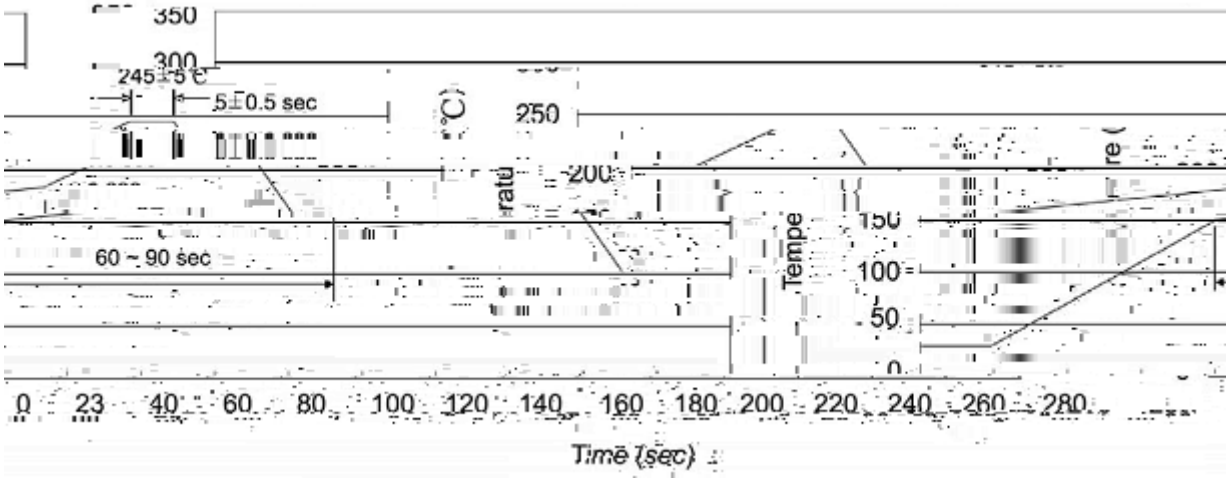
Note:

BR: Company Code.

9414: Product Type.

****: Lot No. Code, code change with Lot No.

## Temperature Profile for IR Reflow Soldering(Pb-Free)




Note:

1 25 150 60 90sec;

1.Preheating:25~150 , Time:60~90sec.

2 245 5 5 0.5sec;

2.Peak Temp.:245 5 , Duration:5 0.5sec.

3 2 10 /sec.

3. Cooling Speed: 2~10 /sec.

260 5 10 1 sec. Temp:260±5 Time:10±1 sec

/ REEL

| Package Type | Units | | | | | Dimension | | (unit mm³) |
|---|---|---|---|---|---|---|---|---|
| | Units/Reel / | Reels/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Reel | Inner Box | Outer Box |
| SOT-223 | 2,500 | 2 | 5000 | 5 | 25,000 | 13 ×12 | 340×340×50 | 385×257×392 |