

DTC143ZKA
Rev.H Jun.-2025

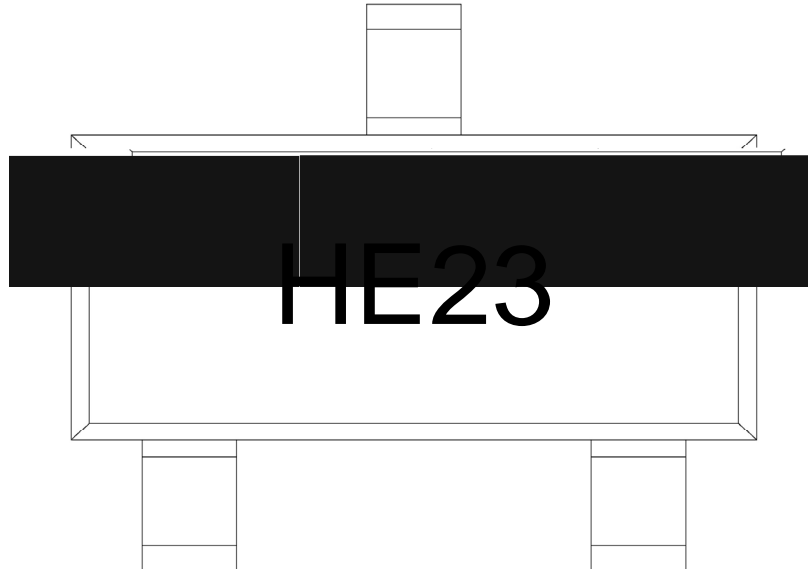
/ Absolute Maximum Ratings(Ta=25)

| Parameter | Symbol | Rating | Unit |
|---------------------------|------------------|---------|------|
| Output Voltage | V _{CC} | 50 | V |
| Input Voltage | V _{IN} | 30 | V |
| | | -5.0 | V |
| Output Current | I _o | 100 | mA |
| Power Dissipation | P _C | 200 | mW |
| Junction Temperature | T _j | 150 | |
| Storage Temperature Range | T _{stg} | -55 150 | |

/ Electrical Characteristics(Ta=25)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|------------------------|--------------------------------|---|------|-----|------|------|
| Input Voltage(OFF) | V _{I(off)} | V _{CC} =5.0V I _o =100 A | 0.5 | | | V |
| Input Voltage(ON) | V _{I(on)} | V _O =0.3V I _o =5.0mA | | | 1.3 | V |
| Output Voltage | V _{O(on)} | I _o =5.0mA I _I =0.25mA | | 0.1 | 0.3 | V |
| Input Current | I _I | V _I =5.0V | | | 1.8 | mA |
| Output Cut-off Current | I _{O(off)} | V _{CC} =50V V _I =0V | | | 0.5 | A |
| DC Current Gain | G _I | V _O =5.0V I _o =10mA | 80 | | | |
| Transition Frequency | f _T | V _{CE} =10V I _E =-5.0mA f=100MHz | | 250 | | MHz |
| Resistance1 | R ₁ | | 3.29 | 4.7 | 6.11 | K |
| Resistance Ratio | R ₂ /R ₁ | | 8.0 | 10 | 12 | |

/ Marking Instructions



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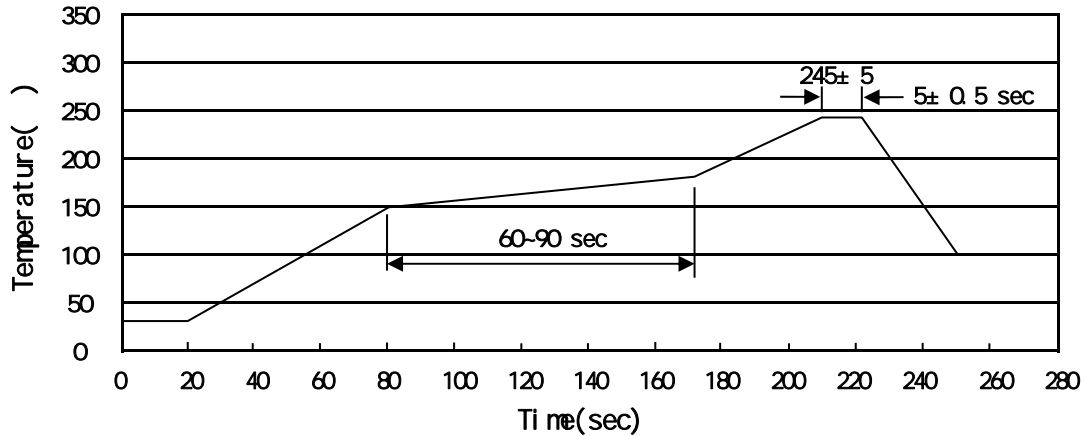
E23

Note:

? Company Code

E23 Product Type Code

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



Note:

- | | | | | | |
|---|-------|-----|-------|----------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5 | sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

| Package Type | Units | | | | | Dimension (unit mm ³) | | |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
| | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel | Inner Box | Outer Box |
| SOT-23 | 3,000 | 10 | 30,000 | 6 | 180,000 | 7 x8 | 180x120x180 | 390x385x205 |

/ Notices