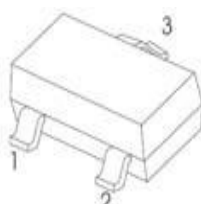


| TRANSI STOR (PNP)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        | SOT-23 Plastic-Encapsulate Transistors                                                                  |      |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------------------------|------|-----------|--------|-------|------|------------------------|------|-----|---|---------------------------|------|-----|---|----------------------|------|----|---|-------------------|----|------|----|-----------------------------|----|-----|----|---------------------------------------------|------|-----|-----|----------------------|----|-----|---|---------------------|------|----------|---|
| <div><p><u>SOT-23</u></p><div><div><p>COLLECTOR<br/>3</p><p>BASE<br/>1</p><p>EMITTER<br/>2</p></div></div><div><p>1.BASE<br/>2.EMITTER<br/>3.COLLECTOR</p></div><div><p>Marking :2TY</p></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        | <div><p>Features</p><div><p>※ Complimentary to S8050</p><p>※ Collector Current: Ic=0.5A</p></div></div> |      |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| <div><p>MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)</p><table><tr><th>Parameter</th><th>Symbol</th><th>Value</th><th>Unit</th></tr><tr><td>Collector-Base Voltage</td><td>VCBO</td><td>-40</td><td>V</td></tr><tr><td>Collector-Emitter Voltage</td><td>VCEO</td><td>-25</td><td>V</td></tr><tr><td>Emitter-Base Voltage</td><td>VEBO</td><td>-5</td><td>V</td></tr><tr><td>Collector Current</td><td>IC</td><td>-500</td><td>mA</td></tr><tr><td>Collector Power Dissipation</td><td>PC</td><td>300</td><td>mW</td></tr><tr><td>Thermal Resistance From Junction To Ambient</td><td>RΘJA</td><td>417</td><td>℃/W</td></tr><tr><td>Junction Temperature</td><td>Tj</td><td>150</td><td>℃</td></tr><tr><td>Storage Temperature</td><td>Tstg</td><td>-55~+150</td><td>℃</td></tr></table></div> |        |                                                                                                         |      | Parameter | Symbol | Value | Unit | Collector-Base Voltage | VCBO | -40 | V | Collector-Emitter Voltage | VCEO | -25 | V | Emitter-Base Voltage | VEBO | -5 | V | Collector Current | IC | -500 | mA | Collector Power Dissipation | PC | 300 | mW | Thermal Resistance From Junction To Ambient | RΘJA | 417 | ℃/W | Junction Temperature | Tj | 150 | ℃ | Storage Temperature | Tstg | -55~+150 | ℃ |
| Parameter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Symbol | Value                                                                                                   | Unit |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| Collector-Base Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | VCBO   | -40                                                                                                     | V    |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| Collector-Emitter Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | VCEO   | -25                                                                                                     | V    |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| Emitter-Base Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | VEBO   | -5                                                                                                      | V    |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| Collector Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | IC     | -500                                                                                                    | mA   |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| Collector Power Dissipation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PC     | 300                                                                                                     | mW   |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| Thermal Resistance From Junction To Ambient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | RΘJA   | 417                                                                                                     | ℃/W  |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| Junction Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Tj     | 150                                                                                                     | ℃    |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |
| Storage Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Tstg   | -55~+150                                                                                                | ℃    |           |        |       |      |                        |      |     |   |                           |      |     |   |                      |      |    |   |                   |    |      |    |                             |    |     |    |                                             |      |     |     |                      |    |     |   |                     |      |          |   |

**ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)**

| Parameter                            | Symbol   | Test Condition              | Min | Typ | Max  | Unit |
|--------------------------------------|----------|-----------------------------|-----|-----|------|------|
| Collector-base breakdown voltage     | V(BR)CBO | IC= -100μA, IE=0            | -40 | -86 | -200 | V    |
| Collector-emitter breakdown voltage  | V(BR)CEO | IC= -1mA, IB=0              | -25 | -50 | -100 | V    |
| Emitter-base breakdown voltage       | V(BR)EBO | IE= -100μA, IC=0            | -5  | -11 | -30  | V    |
| Collector cut-off current            | ICBO     | VCB= -40 V , IE=0           |     |     | -0.1 | μA   |
| Collector cut-off current            | ICEO     | VCB= -25V , IE=0            |     |     | -1.4 | μA   |
| Emitter cut-off current              | IEBO     | VEB= -6V , IC=0             |     |     | -0.1 | μA   |
| DC current gain                      | hFE      | VCE=1V, IC= 50mA            | 200 |     | 350  |      |
|                                      | hFE      | VCE=1V, IC= 500mA           | 50  |     |      |      |
| Collector-emitter saturation voltage | VCE(sat) | IC= 500 mA, IB= 50mA        |     |     | -0.6 | V    |
| Base-emitter saturation voltage      | VBE(sat) | IC= 500 mA, IB= 50mA        |     |     | -1.2 | V    |
| Transition frequency                 | fT       | VCE=6V, IC= 20mA<br>f=30MHz | 150 |     |      | MHz  |

# TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

