

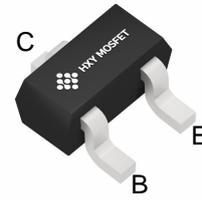


Features

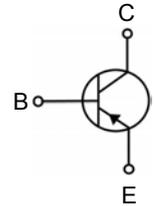
- Small Surface Mount Package
- Ideal for Medium Power Amplification and Switching

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|---------|----------|----------|
| 2SA1576A | SOT-323 | FQ/FR/FS | 3000 |



SOT-323



Maximum Ratings (Ta=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|------------------|------------------------------|---------|------|
| V _{CB0} | Collector-Base Voltage | -60 | V |
| V _{CE0} | Collector-Emitter Voltage | -50 | V |
| V _{EB0} | Emitter-Base Voltage | -6 | V |
| I _C | Collector Current-Continuous | -150 | mA |
| P _C | Collector Power Dissipation | 200 | mW |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55-150 | °C |

Electrical Characteristics (Ta=25°C unless otherwise specified)

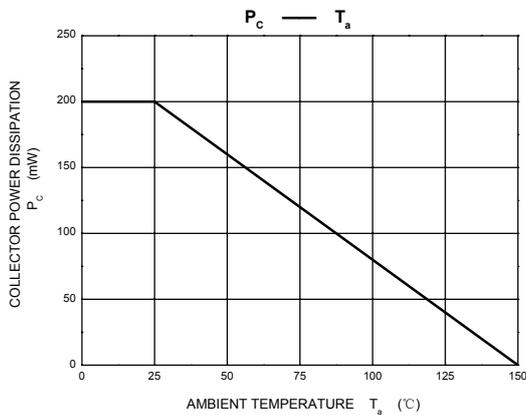
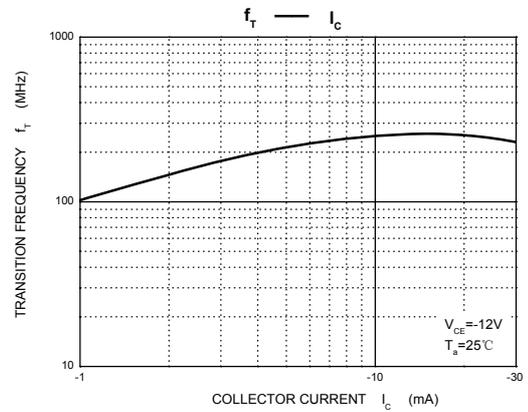
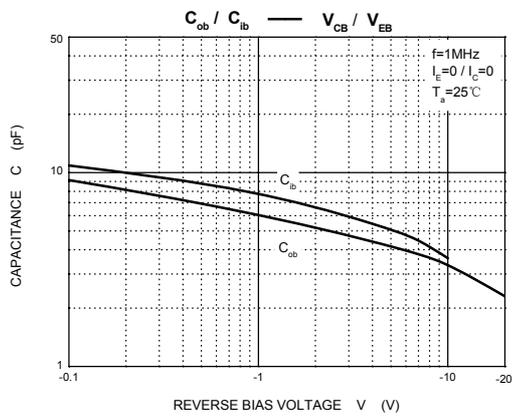
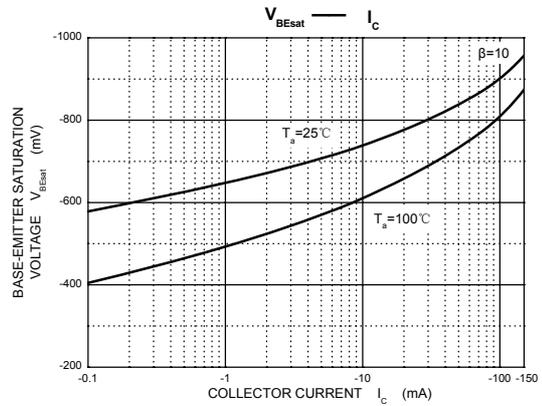
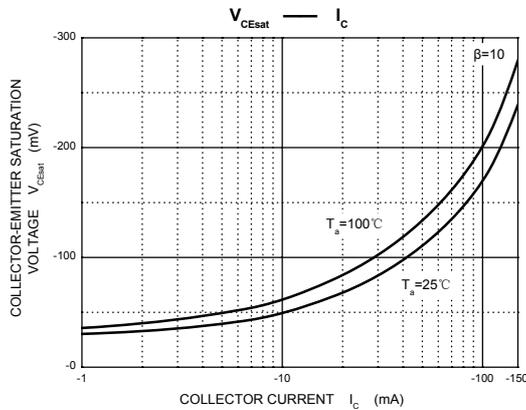
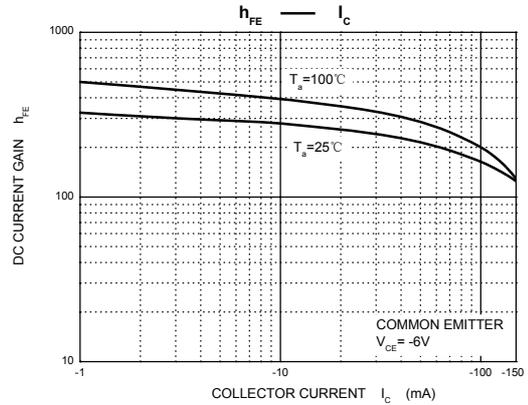
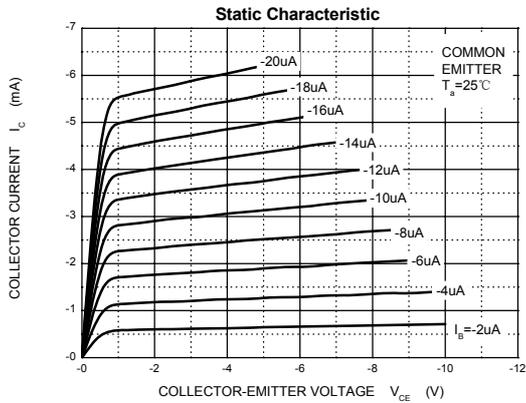
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|--|-----|-----|------|------|
| Collector- base breakdown voltage | V _{CB0} | I _C = -50 μA, I _E =0 | -60 | | | V |
| Collector- emitter breakdown voltage | V _{CE0} | I _C = -1 mA, I _B =0 | -50 | | | |
| Emitter - base breakdown voltage | V _{EB0} | I _E = -50 μA, I _C =0 | -6 | | | |
| Collector-base cut-off current | I _{CB0} | V _{CB} = -60 V, I _E =0 | | | -0.1 | uA |
| Emitter cut-off current | I _{EB0} | V _{EB} = -6V, I _C =0 | | | -0.1 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =-50 mA, I _B =-5 mA | | | -0.5 | V |
| Base - emitter saturation voltage | V _{BE(sat)} | I _C =-50 mA, I _B =-5 mA | | | -1.2 | |
| DC current gain | h _{FE} | V _{CE} = -6V, I _C = -1mA | 120 | | 560 | |
| Collector output capacitance | C _{ob} | V _{CB} = -12V, I _E =0, f=1MHz | | 4 | 5 | pF |
| Transition frequency | f _t | V _{CE} = -12V, I _C = -2mA, f=30MHz | | 140 | | MHz |

Classification of h_{FE}

| Type | 2SA1576AQ | 2SA1576AR | 2SA1576AS |
|---------|-----------|-----------|-----------|
| Range | 120-270 | 180-390 | 270-560 |
| Marking | FQ | FR | FS |

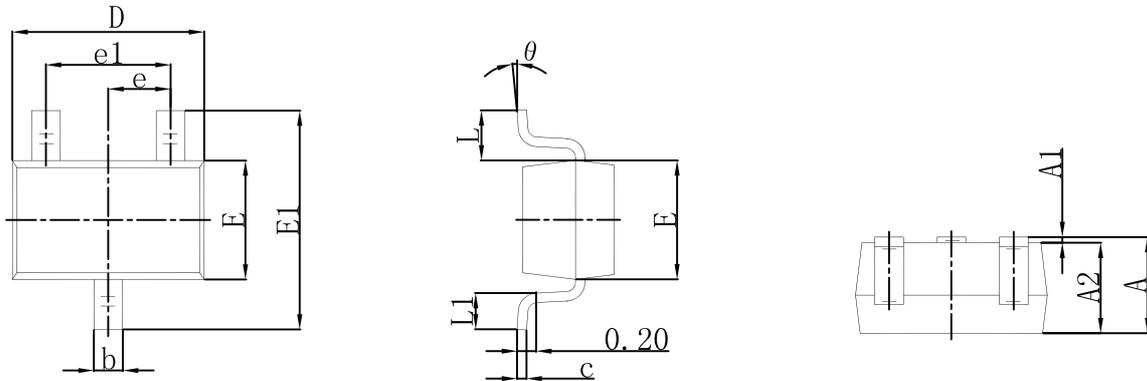


Typical Characteristics



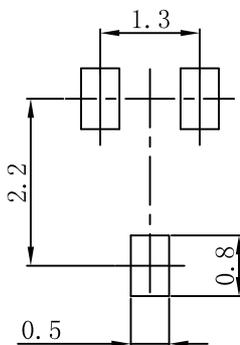


Package Dimensions SOT-323



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.900 | 1.100 | 0.035 | 0.043 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.000 | 0.035 | 0.039 |
| b | 0.200 | 0.400 | 0.008 | 0.016 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.000 | 2.200 | 0.079 | 0.087 |
| E | 1.150 | 1.350 | 0.045 | 0.053 |
| E1 | 2.150 | 2.450 | 0.085 | 0.096 |
| e | 0.650 TYP | | 0.026 TYP | |
| e1 | 1.200 | 1.400 | 0.047 | 0.055 |
| L | 0.525 REF | | 0.021 REF | |
| L1 | 0.260 | 0.460 | 0.010 | 0.018 |
| K | 0° | 8° | 0° | 8° |

SOT-323 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.



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