

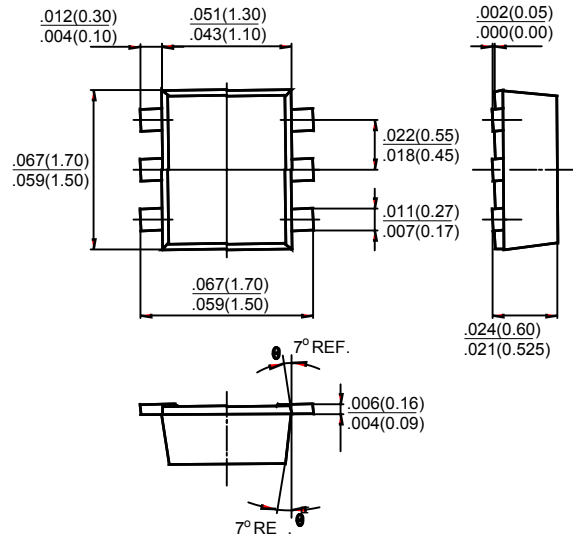
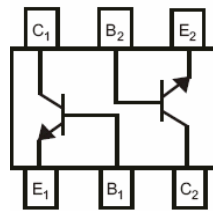
RoHS Compliant Product

SOT-563

FEATURES

- * Epitaxial Die Construction
- * Complementary PNP Type Available (BC857BV)
- * Ultra-Small Surface Mount Package

Marking:K4V



MAXIMUM RATINGS* T_A=25. unless otherwise noted

Dimensions in inches and (millimeters)

| Symbol | Parameter | Value | Units |
|------------------|---|---------|-------|
| V _{CBO} | Collector-Base Voltage | 50 | V |
| V _{CEO} | Collector-Emitter Voltage | 45 | V |
| V _{EBO} | Emitter-Base Voltage | 6 | V |
| I _C | Collector Current -Continuous | 0.1 | A |
| P _C | Collector Dissipation | 0.15 | W |
| R _{θJA} | Thermal Resistance. Junction to Ambient Air | 833 | °C/W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55-150 | °C |

ELECTRICAL CHARACTERISTICS (T_{amb}=25 unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|---|-----|------------|------------|------|
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C =10μA, I _E =0 | 50 | | | V |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C =10mA, I _B =0 | 45 | | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E =1μA, I _C =0 | 6 | | | V |
| Collector cut-off current | I _{CBO} | V _{CB} =30V, I _E =0 | | | 15 | nA |
| Emitter cut-off current | I _{EBO} | V _{EB} =5V, I _C =0 | | | 100 | nA |
| DC current gain | h _{FE(1)} | V _{CE} =5V, I _C =2mA | 200 | | 450 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =10mA, I _B =0.5mA I _C =100mA, I _B =5mA | | | 100 300 | mV |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C =10mA, I _B =0.5mA I _C =100mA, I _B =5mA | | 700 900 | | mV |
| Base-emitter voltage | V _{BE} | V _{CE} =5V, I _C =2mA V _{CE} =5V, I _C =10mA | 580 | 660 | 700 770 | mV |
| Transition frequency | f _T | V _{CE} =5V, I _C =10mA, f=100MHz | 100 | | | MHz |
| Output capacitance | C _{ob} | V _{CB} =10V, I _E =0, f=1MHz | | | 4.5 | pF |
| Noise Figure | NF | V _{CE} =5V, R _s =2kΩ, f=1kHz, BW=200Hz | | | 10 | dB |

