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SOT - 23



- 1. BASE
- 2. EMITTER
- 3. COLLECTOR

TRANSISTOR (PNP)

FEATURE

- Collector-Base Voltage
- Complement to C945-MS

MARKING: CS

MAXIMUM RATINGS(Ta=25℃ unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|------------------|-------------------------------|---------|------|
| V _{CBO} | Collector-Base Voltage | -60 | V |
| V _{CEO} | Collector-Emitter Voltage | -50 | V |
| V _{EBO} | Emitter-Base Voltage | -5 | V |
| Ic | Collector Current -Continuous | -150 | mA |
| Pc | Collector Power Dissipation | 200 | mW |
| Tj | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55-150 | °C |

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Тур | Max | Unit |
|--------------------------------------|-----------------------|---|-------|-------|-------|------|
| Collector-base breakdown voltage | V _{(BR)CBO} | I_C = -5uA, I_E =0 | -60 | | | ٧ |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C = -1mA , I _B =0 | -50 | | | ٧ |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E = -50uA, I _C =0 | -5 | | | ٧ |
| Collector cut-off current | I _{CBO} | V _{CB} = -60 V , I _E =0 | | | -0.1 | uA |
| Emitter cut-off current | I _{EBO} | V _{EB} = -5 V , I _C =0 | | | -0.1 | uA |
| DC current gain | h _{FE} | V _{CE} = -6 V, I _C = -1mA | 120 | | 475 | |
| Collector-emitter saturation voltage | V _{CE} (sat) | I _C = -100mA, I _B =- 10mA | | -0.18 | -0.3 | ٧ |
| Base-emitter voltage | V _{BE(on)} | V _{CE} =-6V,I _C =-1.0mA | -0.58 | -0.62 | -0.68 | ٧ |
| Transition frequency | f⊤ | V _{CE} =-6V,I _C =-10mA | 50 | | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} =-10V,I _E =0,f=1MH _Z | | 4.5 | 7 | pF |
| Noise figure | NF | V_{CE} =-6V, I_{C} =-0.3mA, Rg=10k Ω ,f=100H _Z | | 6 | 20 | dB |

CLASSIFICATION OF h_{FE}

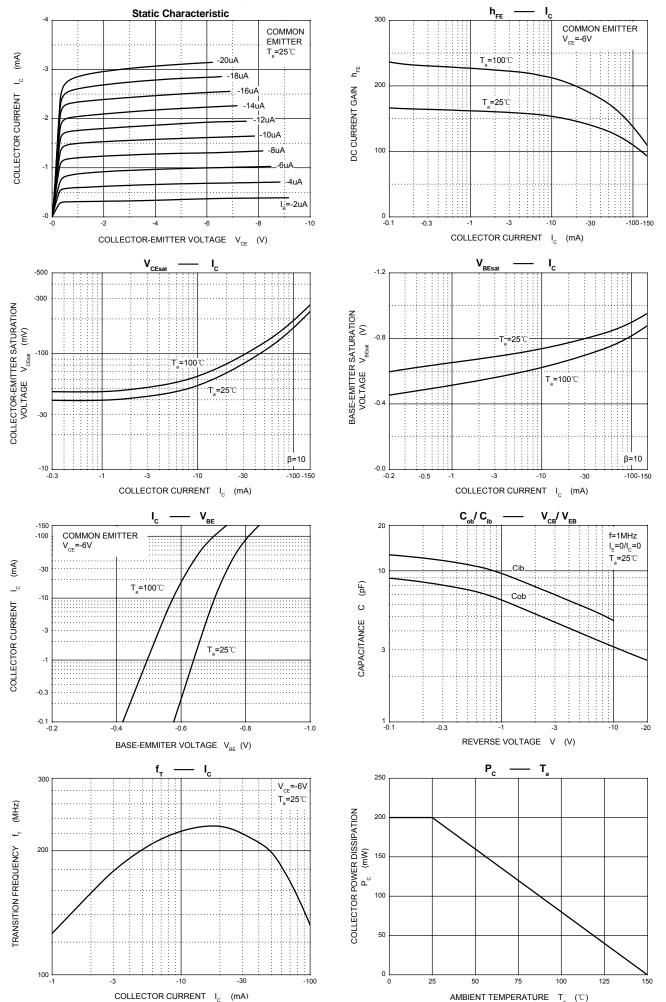
| Rank | L | н | |
|-------|---------|---------|--|
| Range | 120-200 | 200-400 | |



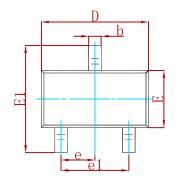
Semiconductor

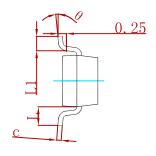
Compiance

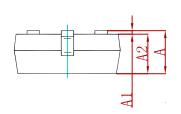
Typical Characterisitics



PACKAGE MECHANICAL DATA

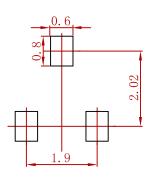






| Cumbal | Dimensions In Millimeters | | Dimensions In Inches | | |
|--------|---------------------------|-------|----------------------|-------|--|
| Symbol | Min | Max | Min | Max | |
| Α | 0.900 | 1.150 | 0.035 | 0.045 | |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 | |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 | |
| b | 0.300 | 0.500 | 0.012 | 0.020 | |
| С | 0.080 | 0.150 | 0.003 | 0.006 | |
| D | 2.800 | 3.000 | 0.110 | 0.118 | |
| Е | 1.200 | 1.400 | 0.047 | 0.055 | |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 | |
| е | 0.950 |) TYP | 0.03 | 7 TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 | |
| L | 0.550 REF | | 0.022 REF | | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 | |
| θ | 0° | 8° | 0° | 8° | |

Suggested Pad Layout



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

REEL SPECIFICATION

| P/N | PKG | QTY |
|---------|--------|------|
| A733-MS | SOT-23 | 3000 |



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