



Micro Commercial Components



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2SC2883-O

2SC2883-Y

Features

- Halogen free available upon request by adding suffix "-HF"
- Power amplifier applications
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

| Symbol | Rating | Rating | Unit |
|------------------|-----------------------------|-------------|------|
| V _{CEO} | Collector-Emitter Voltage | 30 | V |
| V _{CBO} | Collector-Base Voltage | 30 | V |
| V _{EBO} | Emitter-Base Voltage | 5.0 | V |
| I _C | Collector Current | 1500 | mA |
| P _C | Collector power dissipation | 500 | mW |
| T _J | Junction Temperature | 150 | °C |
| T _{STG} | Storage Temperature | -55 to +150 | °C |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Typ. | Max | Units |
|--------|-----------|-----|------|-----|-------|
|--------|-----------|-----|------|-----|-------|

OFF CHARACTERISTICS

| | | | | | |
|----------------------|---|-----|-----|-----|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage* (I _C =10mA, I _B =0) | 30 | --- | --- | Vdc |
| V _{(BR)EBO} | Collector-Emitter Breakdown Voltage* (I _E =1mA, I _C =0) | 5 | --- | --- | Vdc |
| I _{CBO} | Collector-Base Cutoff Current (V _{CB} =30Vdc, I _E =0) | --- | --- | 0.1 | uAdc |
| I _{EBO} | Emitter-Base Cutoff Current (V _{EB} =5.0Vdc, I _C =0) | --- | --- | 0.1 | uAdc |

ON CHARACTERISTICS

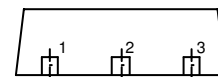
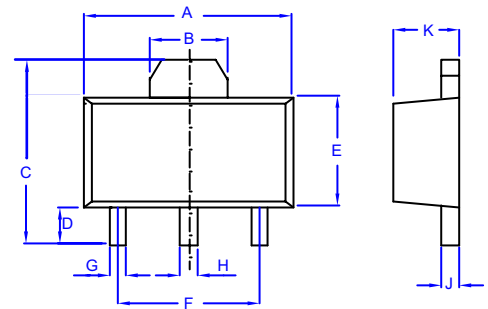
| | | | | | |
|----------------------|--|-----|-----|-----|-----|
| h _{FE} | Forward Current Transfer ratio (I _C =0.5Adc, V _{CE} =2.0Vdc) | 100 | --- | 320 | --- |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage (I _C =1.5Adc, I _B =30mA) | --- | --- | 2.0 | Vdc |
| V _{BE} | Base-Emitter Voltage (I _C =0.5Adc, V _{CE} =2.0Vdc) | --- | --- | 1.0 | Vdc |
| f _T | Transition Frequency (I _C =0.5Adc, V _{CE} =2.0Vdc) | --- | 120 | --- | MHz |
| C _{ob} | Collector Output Capacitance (V _{CB} =10V, I _E =0, f=1MHz) | --- | --- | 40 | pF |

CLASSIFICATION OF H_{FE}

| | | |
|---------|---------|---------|
| Rank | O | Y |
| Range | 100-200 | 160-320 |
| Marking | GO | GY |

NPN Silicon Power Transistors

SOT-89



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

| DIM | DIMENSIONS | | | | NOTES |
|-----|------------|------|------|------|-------|
| | INCHES | | MM | | |
| A | .173 | .181 | 4.39 | 4.60 | |
| B | .061 | ---- | 1.55 | ---- | REF. |
| C | .154 | .165 | 3.91 | 4.25 | |
| D | .031 | .039 | 0.80 | 1.00 | |
| E | .092 | .100 | 2.34 | 2.54 | |
| F | .118 | ---- | 3.00 | ---- | TYP |
| G | .013 | .019 | 0.33 | 0.48 | |
| H | .015 | .021 | 0.38 | 0.53 | |
| J | .015 | .016 | 0.38 | 0.41 | |
| K | .055 | .063 | 1.40 | 1.60 | |

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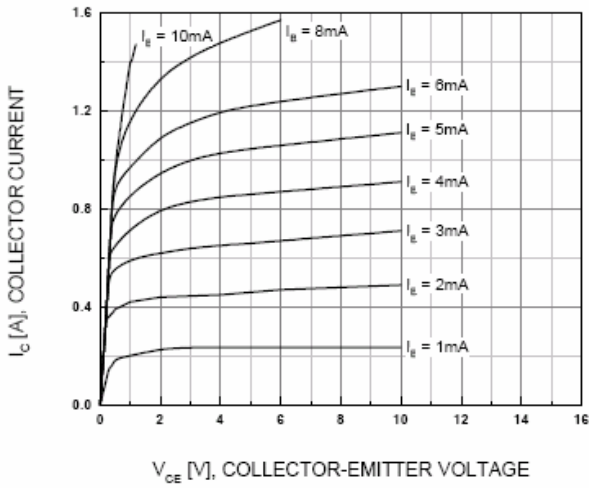


Figure 1. Static Characteristics

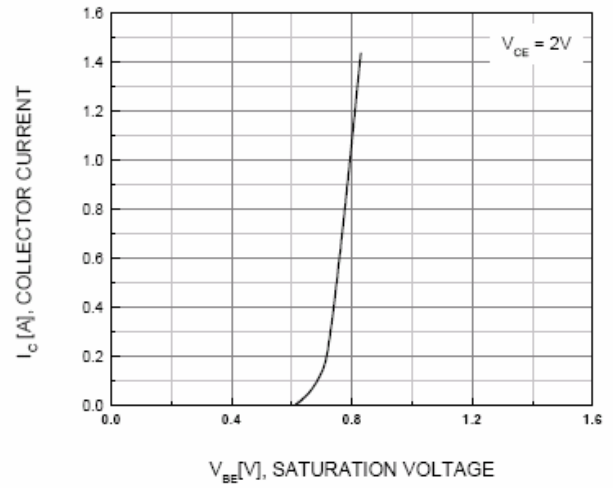


Figure 2. Base-Emitter On Voltage

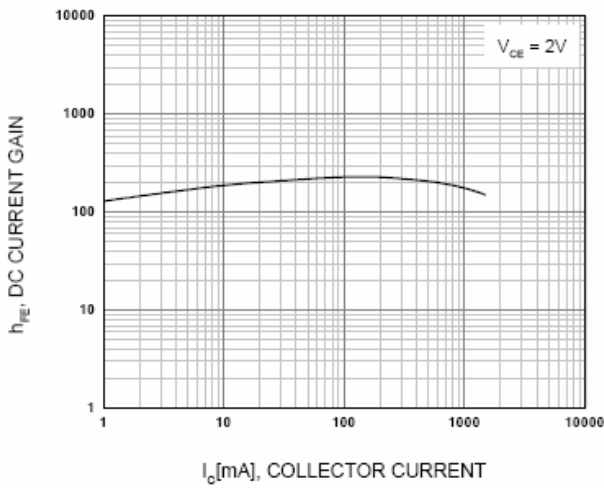


Figure 3. DC Current Gain

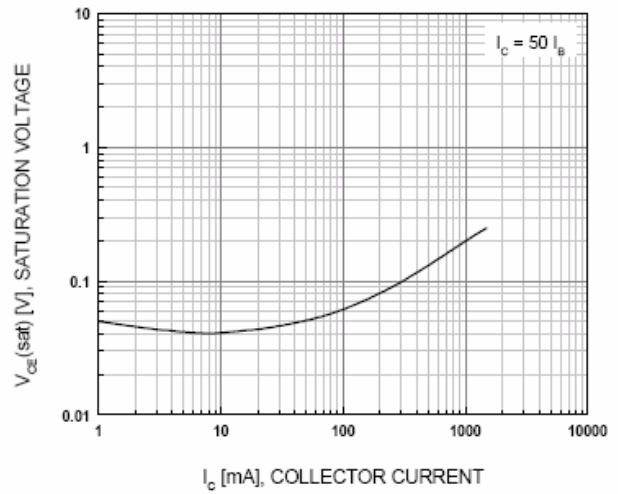


Figure 4. Collector-Emitter Saturation Voltage

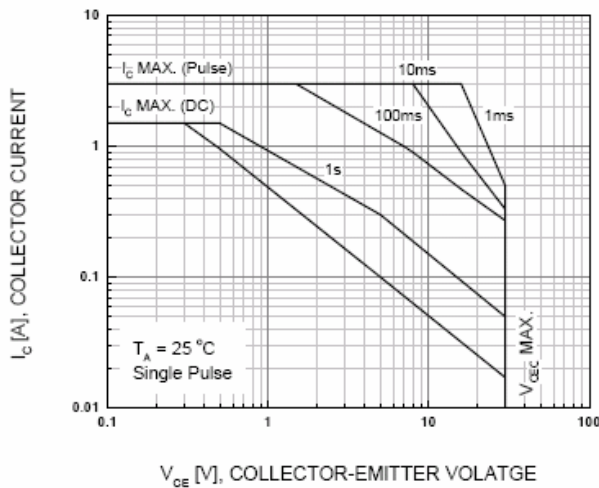


Figure 5. Safe Operating Area

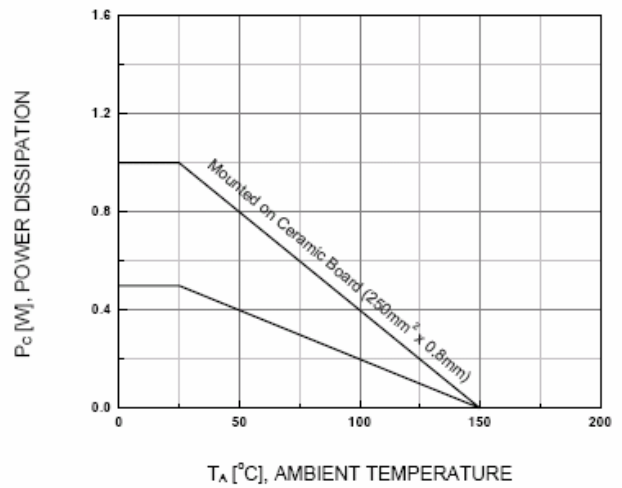


Figure 6. Power Derating

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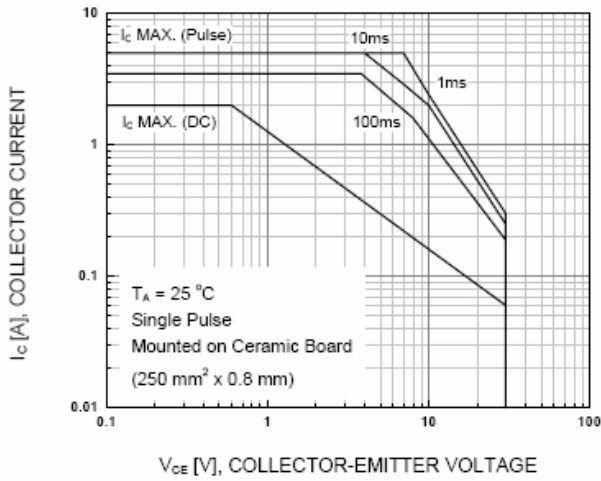


Figure 7. Safe Operating Area

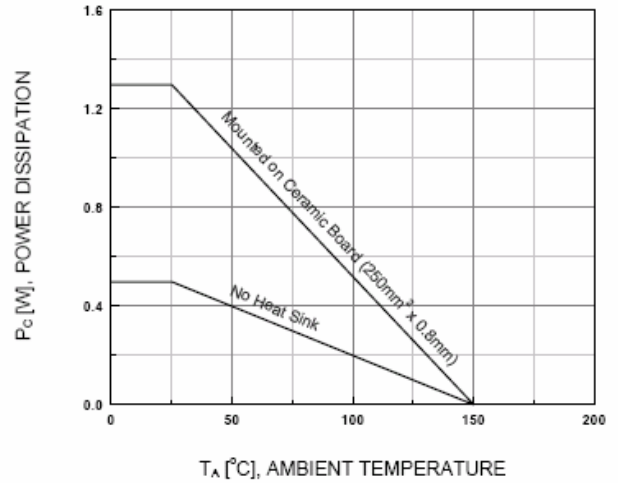


Figure 8. Power Derating



TM

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Ordering Information :

| Device | Packing |
|----------------|--------------------------|
| Part Number-TP | Tape & Reel; 1 Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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