

Electrical Characteristics @ $T_A=25^\circ\text{C}$ Unless Otherwise Specified

| Parameter | Symbol | Min | Typ | Max | Units | Conditions |
|--------------------------------------|---------------|-----|-----|------|---------------|---|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | -40 | | | V | $I_C=-100\mu\text{A}, I_E=0$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | -25 | | | V | $I_C=-1\text{mA}, I_B=0$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | -5 | | | V | $I_E=-100\mu\text{A}, I_C=0$ |
| Collector-Base Cutoff Current | I_{CBO} | | | -0.1 | μA | $V_{CB}=-40\text{V}, I_E=0$ |
| Collector Cutoff Current | I_{CEO} | | | -0.1 | μA | $V_{CE}=-20\text{V}, I_B=0$ |
| Emitter-Base Cutoff Current | I_{EBO} | | | -0.1 | μA | $V_{EB}=-5\text{V}, I_C=0$ |
| DC Current Gain | $h_{FE(1)}$ | 120 | | 350 | | $V_{CE}=-1\text{V}, I_C=-50\text{mA}$ |
| | $h_{FE(2)}$ | 40 | | | | $V_{CE}=-1\text{V}, I_C=-500\text{mA}$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | | -0.6 | V | $I_C=-500\text{mA}, I_B=-50\text{mA}$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | | -1.2 | V | $I_C=-500\text{mA}, I_B=-50\text{mA}$ |
| Base-Emitter Voltage | V_{BE} | | | -1.4 | V | $I_E=-100\text{mA}$ |
| Transition Frequency | f_T | 150 | | | MHz | $V_{CE}=-6\text{V}, I_C=-20\text{mA}, f=30\text{MHz}$ |

Classification of $h_{FE(1)}$

| Rank | L | H |
|-------|---------|---------|
| Range | 120-200 | 200-350 |

Curve Characteristics

Fig. 1 - Static Characteristics

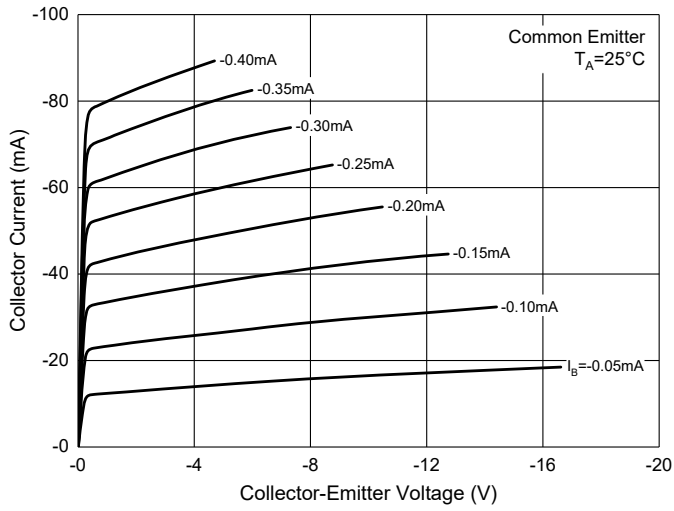


Fig. 2 - DC Current Gain Characteristics

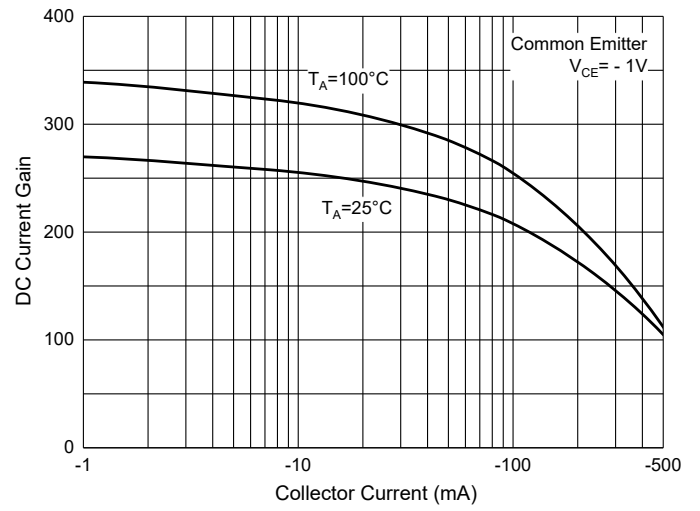


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

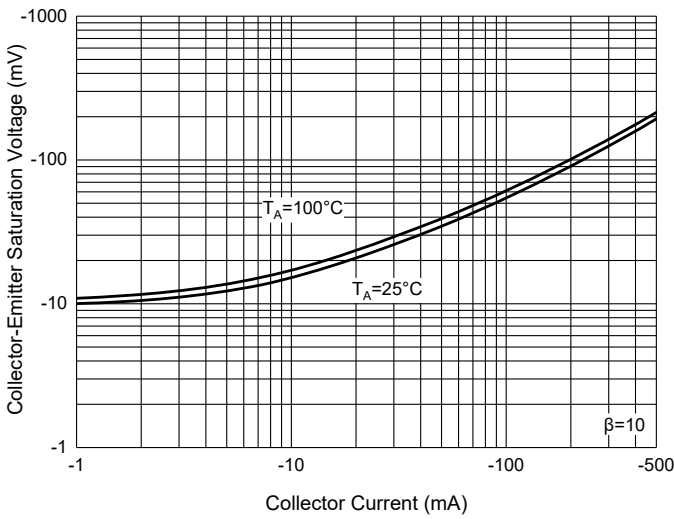


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

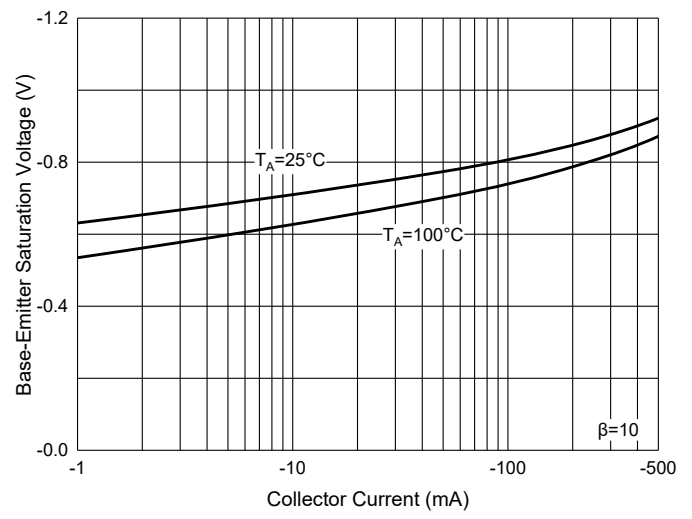


Fig. 5 - Transition frequency Characteristics

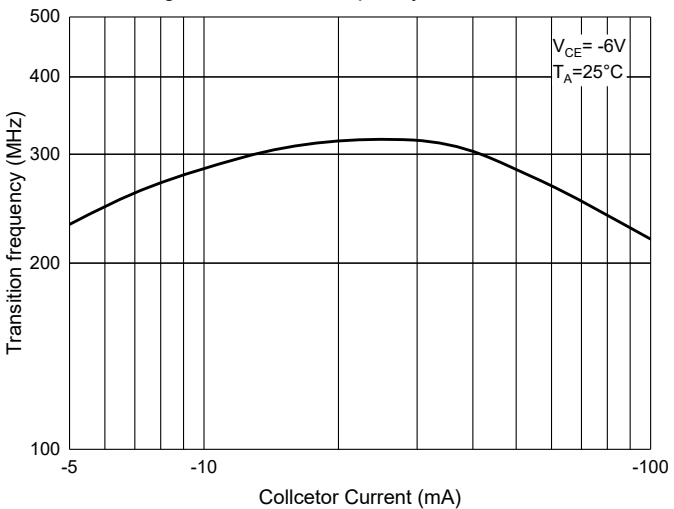
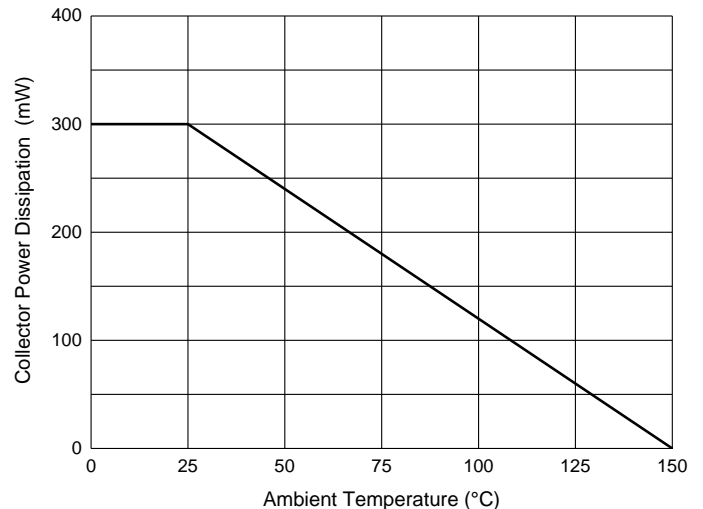


Fig. 6 - Collector Power Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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