

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

Parameter		Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	MMBTA05	$V_{(BR)CBO}$	60			V	$I_C=100\mu\text{A}, I_E=0$
	MMBTA06		80			V	
Collector-Emitter Breakdown Voltage	MMBTA05	$V_{(BR)CEO}$	60			V	$I_C=1\text{mA}, I_B=0$
	MMBTA06		80				
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	4			V	$I_E=100\mu\text{A}, I_C=0$
Collector Cutoff Current	MMBTA05	I_{CBO}			0.1	μA	$V_{CB}=60\text{V}, I_E=0$
	MMBTA06				0.1	μA	$V_{CB}=80\text{V}, I_E=0$
Collector Cutoff Current		I_{CEO}			1	μA	$V_{CE}=60\text{V}, I_B=0$
Emitter Cutoff Current		I_{EBO}			0.1	mA	$V_{EB}=3\text{V}, I_C=0$
DC Current Gain		$h_{FE(1)}$	100		400		$V_{CE}=1\text{V}, I_C=10\text{mA}$
		$h_{FE(2)}$	100				$V_{CE}=1\text{V}, I_C=100\text{mA}$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$			0.25	V	$I_C=100\text{mA}, I_B=10\text{mA}$
Base-Emitter Saturation Voltage		$V_{BE(sat)}$			1.2	V	$I_C=100\text{mA}, I_B=10\text{mA}$
Transition Frequency		f_T	100			MHz	$V_{CE}=2\text{V}, I_C=10\text{mA}, f=100\text{MHz}$

Curve Characteristics

Fig. 1 - Static Characteristics

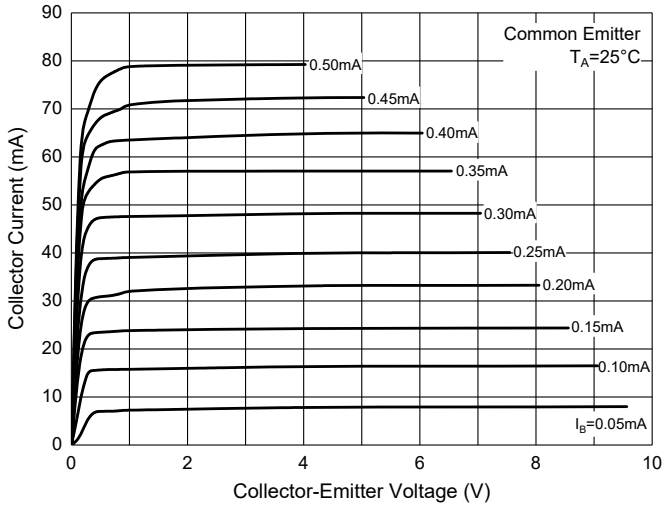


Fig. 2 - DC Current Gain Characteristics

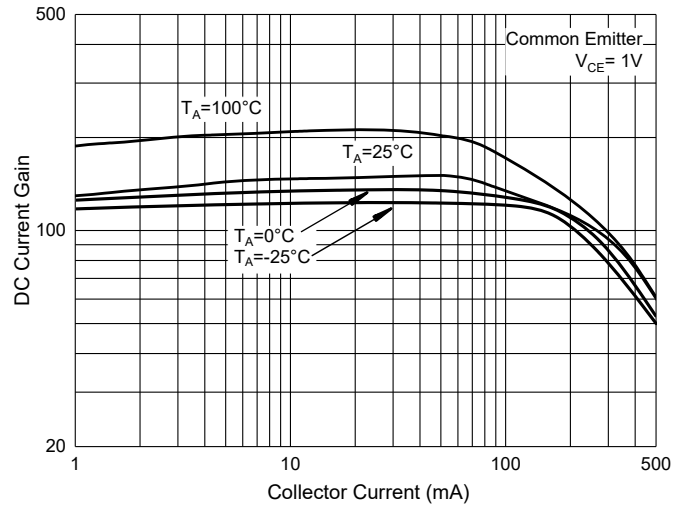


Fig. 3 - Base-Emitter Saturation Voltage Characteristics

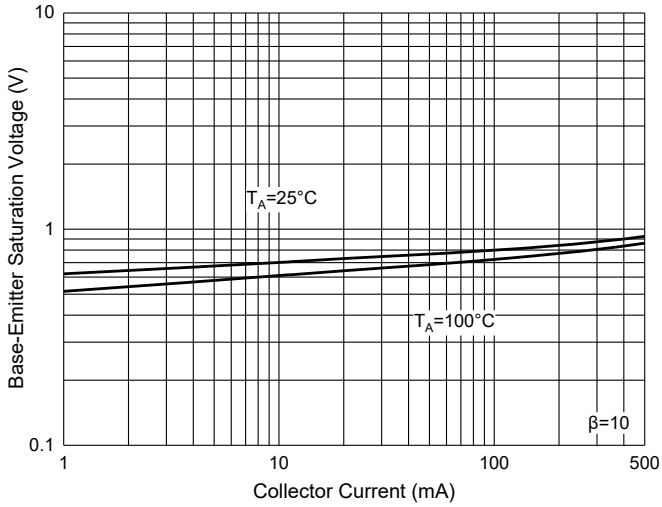


Fig. 4 - Collector-Emitter Saturation Voltage Characteristics

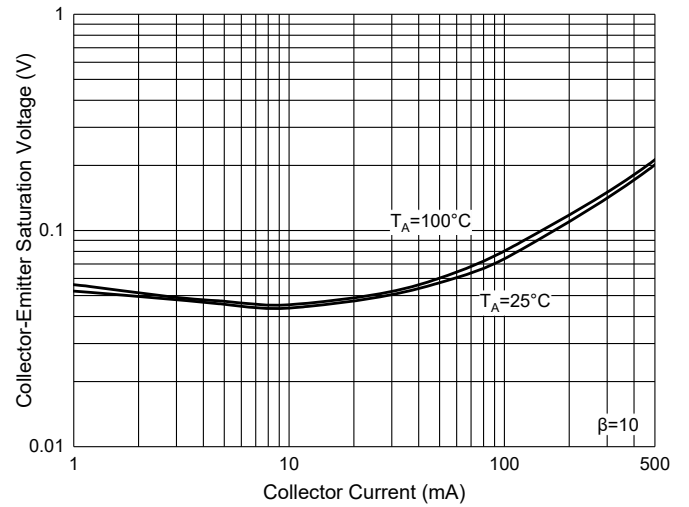


Fig. 5 - Base-Emitter Voltage Characteristics

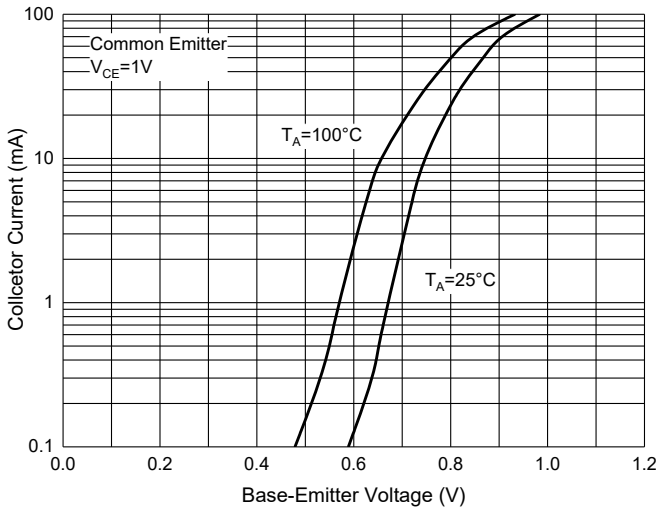
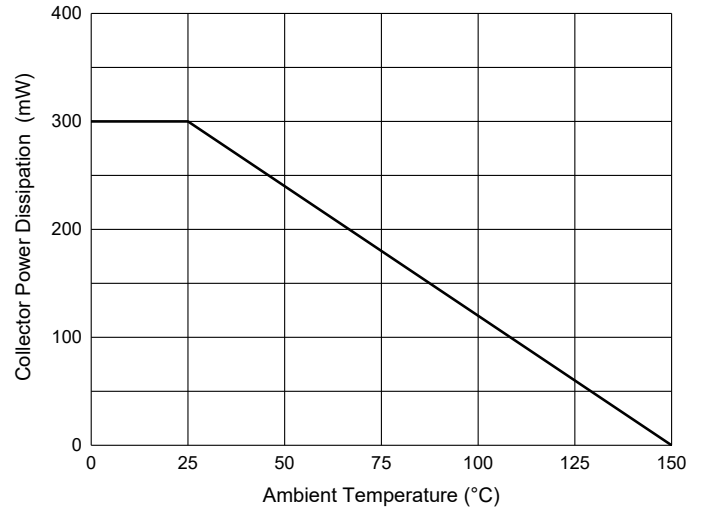


Fig. 6 - Collector Power Derating Curve



Ordering Information

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

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