

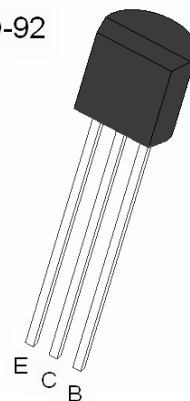
Power Amplifier & Switching Applications

- Low Saturation Voltage : $V_{CE(sat)} = -0.5V(\text{Max}), (I_C = -1A)$

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	-50	V
Collector-Emitter Voltage	BV_{CEO}	-50	V
Emitter-Base Voltage	BV_{EBO}	-5	V
Collector Current	I_C	-2	A
Collector Power Dissipation	P_C	0.9	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C

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Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = -100\mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = -100\mu A, I_C = 0$	-5			V
Collector -base cut-off current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-1	μA
Emitter-base cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -2V, I_C = -0.5A$	70		240	
	$h_{FE(2)}$	$V_{CE} = -2V, I_C = -1.5A$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1A, I_B = -0.05A$			-0.5	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1A, I_B = -0.05A$			-1.2	V
Transition frequency	f_T	$V_{CE} = -2V, I_B = -0.5A$		100		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		40		pF

$h_{FE(1)}$ Classification

Classification	O	Y
h_{FE}	70-140	120-240

Typical Characteristics

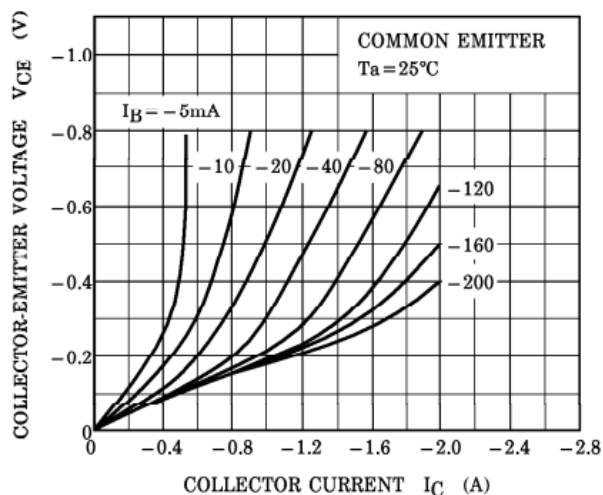


Figure 1. Collector-Emitter Saturation Voltage

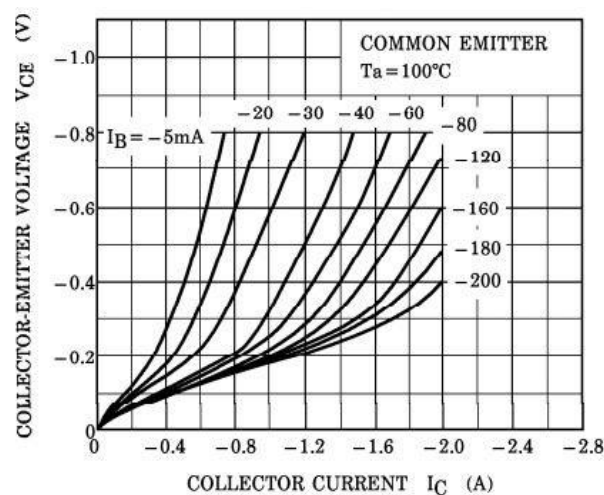


Figure 2. Collector-Emitter Saturation Voltage

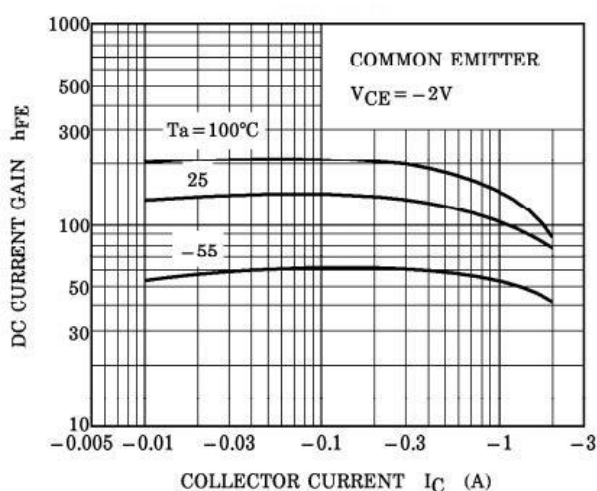


Figure 3. DC current Gain

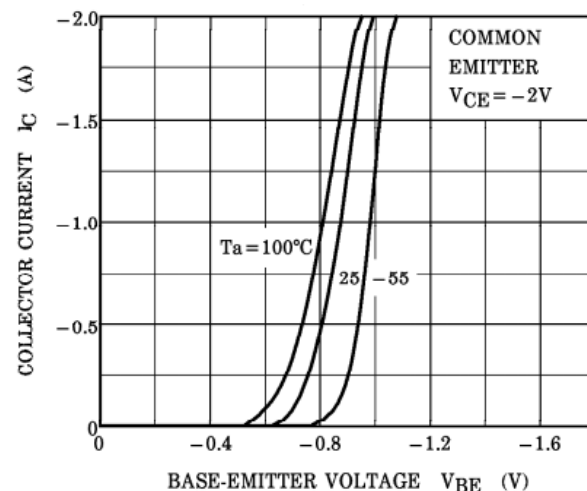


Figure 4. Base-Emitter Saturation Voltage

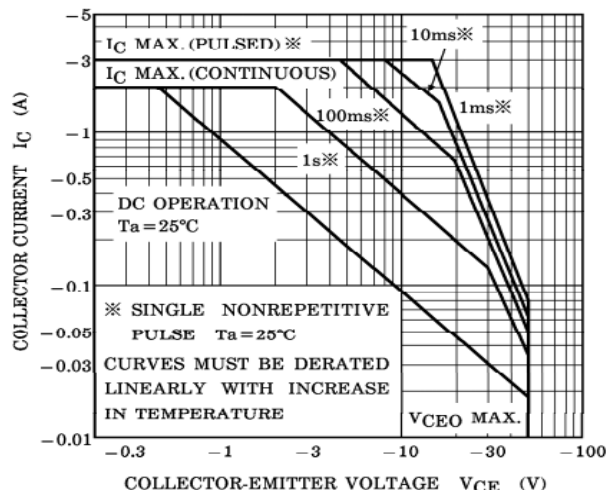


Figure 5. Safe Operating Area

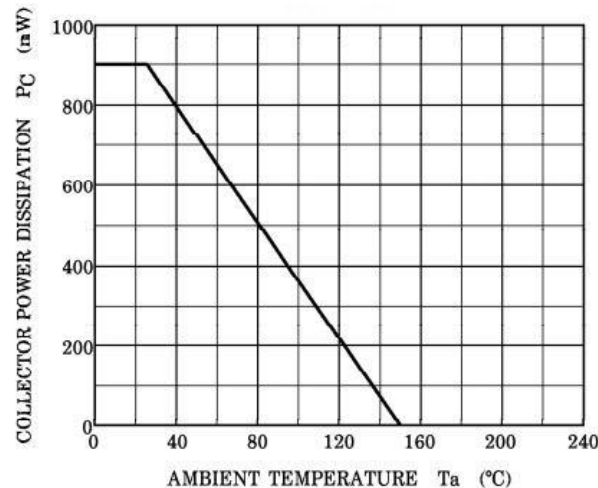
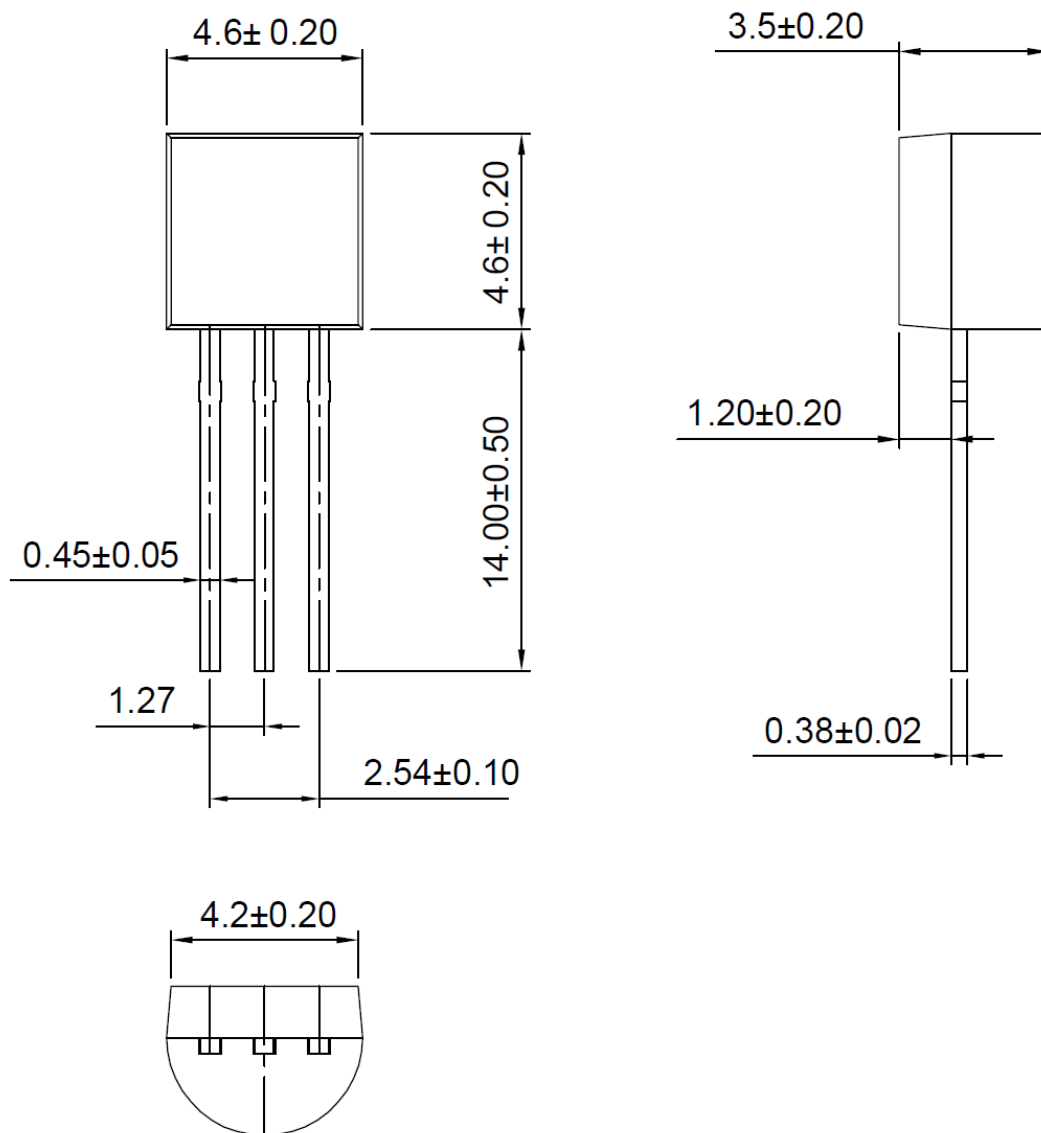


Figure 6. Power Derating

Package Dimensions (Unit:mm)



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