

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

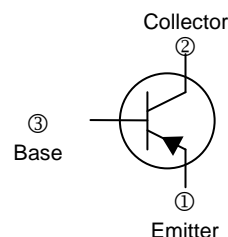
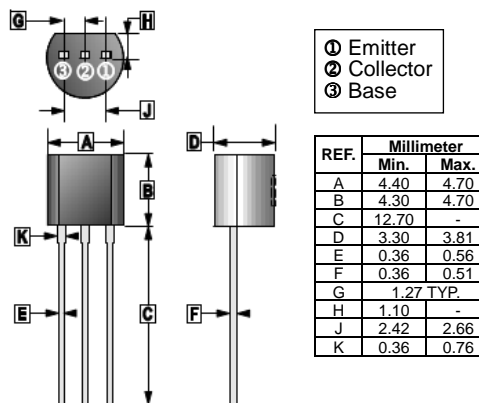
FEATURE

- High DC Current Gain
- Complementary to KTC3203

CLASSIFICATION OF h_{FE} (1)

Product-Rank	KTA1271-O	KTA1271-Y
Range	100~200	160~320

TO-92



ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	-35	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-800	mA
Collector Power Dissipation	P_C	625	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	200	$^\circ\text{C} / \text{W}$
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	-35	-	-	V	$I_C = -0.1\text{mA}, I_E = 0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	-30	-	-	V	$I_C = -10\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -0.1\text{mA}, I_C = 0$
Collector Cut-Off Current	I_{CBO}	-	-	-0.1	μA	$V_{CB} = -35\text{V}, I_E = 0$
Collector Cut-Off Current	I_{CEO}	-	-	-0.2	μA	$V_{CE} = -25\text{V}, I_B = 0$
Emitter Cut-Off Current	I_{EBO}	-	-	-0.1	μA	$V_{EB} = -5\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	100	-	320		$V_{CE} = -1\text{V}, I_C = -100\text{mA}$
	$h_{FE(2)}$	35	-	-		$V_{CE} = -1\text{V}, I_C = -700\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.7	V	$I_C = -500\text{mA}, I_B = -20\text{mA}$
Base to Emitter Voltage	V_{BE}	-	-	-0.8	V	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$
Transition Frequency	f_T	-	120	-	MHz	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$
Collector Output Capacitance	C_{ob}	-	19	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$