

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

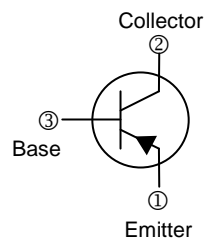
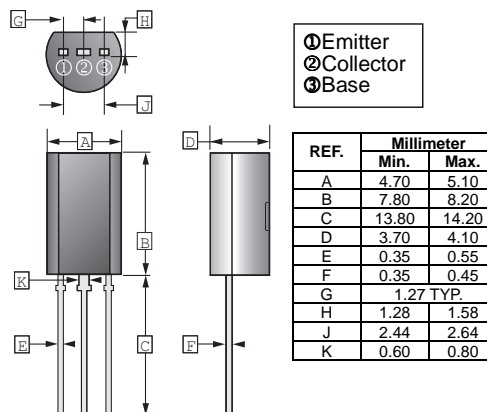
### FEATURE

- Low collector to emitter saturation voltage  $V_{CE(sat)}$ .
- Audio power amplifier
- High Current

### CLASSIFICATION OF $h_{FE}$

Product-Rank	KTA1023-O	KTA1023-Y
Range	80~160	120~240

### TO-92L



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

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	$V_{CBO}$	-120	V
Collector to Emitter Voltage	$V_{CEO}$	-120	V
Emitter to Base Voltage	$V_{EBO}$	-5	V
Collector Current - Continuous	$I_C$	-0.8	A
Collector Power Dissipation	$P_C$	0.9	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-Base Breakdown Voltage	$V_{(BR)CBO}$	-120	-	-	V	$I_C = -10\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-120	-	-	V	$I_C = -10\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -1\text{mA}, I_C = 0$
Collector Cut-off Current	$I_{CBO}$	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -120\text{V}, I_E = 0$
Emitter cut-off current	$I_{EBO}$	-	-	-0.1	$\mu\text{A}$	$V_{EB} = -5\text{V}, I_C = 0$
DC Current Gain	$h_{FE}$	80	-	240		$V_{CE} = -5\text{V}, I_C = -100\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-1	V	$I_C = -0.5\text{A}, I_B = -50\text{mA}$
Base-Emitter Voltage	$V_{BE}$	-	-	-1	V	$I_C = -500\text{mA}, V_{CE} = -5\text{V}$
Transition Frequency	$f_T$	-	120	-	MHz	$V_{CE} = -5\text{V}, I_C = -100\text{mA}$
Collector Output Capacitance	$C_{Ob}$	-	-	40	pF	$V_{CE} = -10\text{V}, I_E = 0, f = 1\text{MHz}$