

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

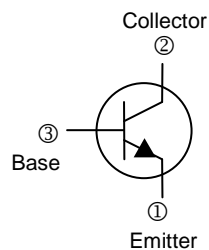
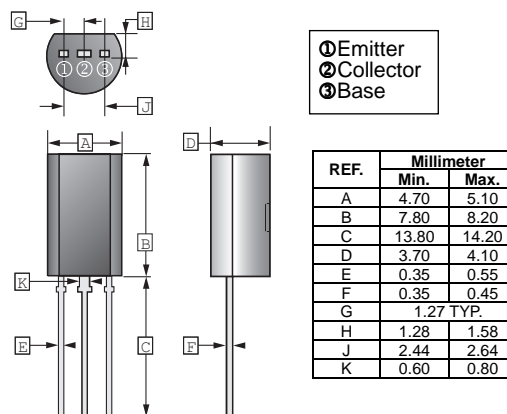
FEATURE

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

CLASSIFICATION OF h_{FE}

Product-Rank	KTC1027-O	KTC1027-Y
Range	80~160	120~240

TO-92L



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

Parameter	Symbol	Rating	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
Continuous Collector Current	I_C	0.8	A
Collector Power Dissipation	P_C	0.75	W
Thermal Resistance	$R_{\theta JA}$	167	$^\circ\text{C} / \text{W}$
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	$V_{(BR)CBO}$	120	-	-	V	$I_C=1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	120	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=1\text{mA}, I_C=0$
Collector Cut - Off Current	I_{CBO}	-	-	0.1	μA	$V_{CB}=120\text{V}, I_E=0$
Emitter cut-off current	I_{EBO}	-	-	0.1	μA	$V_{EB}=5\text{V}, I_C=0$
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	$V_{CE}=5\text{V}, I_C=500\text{mA}$
Collector Output Capacitance	C_{ob}	-	-	30	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$
Transition Frequency	f_T	-	120	-	MHz	$V_{CE}=5\text{V}, I_C=100\text{mA}$