Elektronische Bauelemente

KTC1027

0.8A , 120V

NPN Plastic Encapsulated Transistor

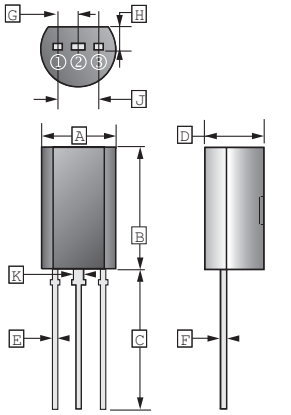
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURE

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

TO-92L

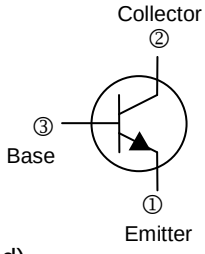


①Emitter
②Collector
③Base

REF.	Millimeter	
	Min.	Max.
A	4.70	5.10
B	7.80	8.20
C	13.80	14.20
D	3.70	4.10
E	0.35	0.55
F	0.35	0.45
G	1.27 TYP.	
H	1.28	1.58
J	2.44	2.64
K	0.60	0.80

CLASSIFICATION OF h_{FE}

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



ABSOLUTE MAXIMUM RATINGS (T_A = 25°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	℃ / W
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	℃

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	120	-	-	V	I_C=1mA, I_E=0
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	120	-	-	V	I_C=10mA, I_B=0
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	I_E=1mA, I_C=0
Collector Cut - Off Current	I_{CBO}	-	-	0.1	μA	V_{CB}=120V, I_E=0
Emitter cut-off current	I_{EBO}	-	-	0.1	μA	V_{EB}=5V, I_C=0
DC Current Gain	h_{FE}	80	-	240		V_{CE}=5V, I_C=100mA
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	1	V	I_C=0.5A, I_B=50mA
Base – Emitter Voltage	V_{BE}	-	-	1	V	V_{CE}=5V, I_C=500mA
Collector Output Capacitance	C_{ob}	-	-	30	pF	V_{CB}=10V, I_E=0, f=1MHz
Transition Frequency	f_T	-	120	-	MHz	V_{CE}=5V, I_C=100mA