KTA1015

SILICON PNP TRANSISTOR
EPITAXIAL PLANAR TYPE (PCT PROCESS)

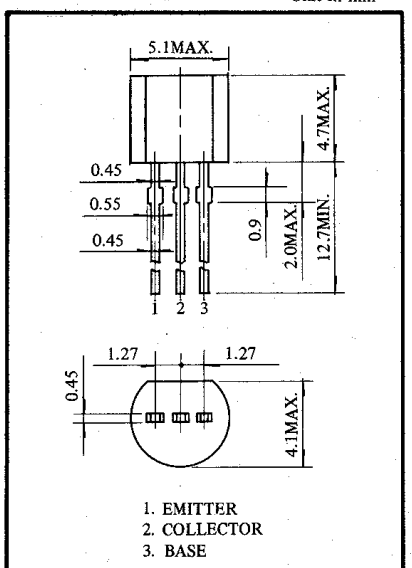
APPLICATIONS

- Low Frequency Amplifier
- Low Noise Amplifier

FEATURES

- Low Noise, NF = 1dB (Typ.), 10dB (Max.)
- Excellent h_{FE} Linearity, h_{FE}(0.1mA)/h_{FE}(2mA) = 0.95 (Typ.)
- Complementary to the KTC 1815
- Excellent Safe Operation Area

Unit in mm



JEDEC TO – 92

MAXIMUM RATINGS (Ta = 25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector – Base Voltage	V_{CBO}	−50	V
Collector – Emitter Voltage	V_{CEO}	−50	V
Emitter – Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−150	mA

CHARACTERISTIC	SYMBOL	RATING	UNIT
Emitter Current	I_E	150	mA
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_j	125	℃
Storage Temperature Range	T_{stg}	−55~125	℃

ELECTRICAL CHARACTERISTICS (Ta = 25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut off Current	I_{CBO}	V_{CB} = −50V, I_E = 0	–	–	−0.1	μA
Emitter Cut off Current	I_{EBO}	V_{EB} = −5V, I_C = 0	–	–	−0.1	μA
DC Current Gain (1)	$h_{FE(1)}$	V_{CE} = −6V, I_C = −2mA	70	–	400	–
DC Current Gain (2)	$h_{FE(2)}$	V_{CE} = −6V, I_C = −150mA	25	–	–	–
Collector – Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = −100mA, I_B = −10mA	–	−0.1	−0.3	V
Base – Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = −100mA, I_B = −10mA	–	–	−1.1	V
Transition Frequency	f_T	V_{CE} = −10V, I_E = 1mA	80	–	–	MHz
Output Capacitance	C_{ob}	V_{CB} = −10V, I_C = 0, f = 1MHz	–	4	7	pF
Base Spreading Resistance	$r_{bb'}$	V_{CB} = −10V, I_C = −1mA, f = 30MHz	–	30	–	Ω
Noise Figure	NF	V_{CE} = −6V, I_C = −0,1mA, R_g = 10kΩ, f = 1KHz	–	1.0	10	dB

■ NOTE: According to h_{FE} (1), Classified as follows

O	70 – 140	Y	120~240	GR	200~400