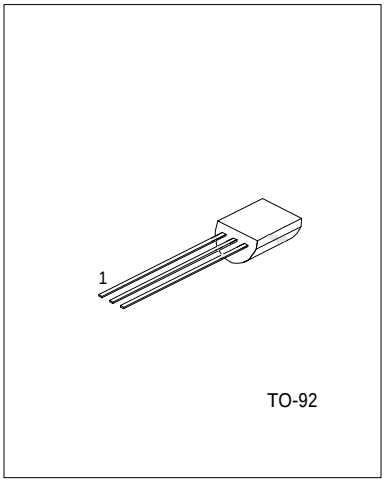
UTC 2SA1015 PNP EPITAXIAL SILICON TRANSISTOR

LOW FREQUENCY PNP AMPLIFIER TRANSISTOR



1:EMITTER 2:COLLECTOR 3: BASE

FEATURES

*Collector-Emitter Voltage:
V_{CEO}=-50V
*Collector current up to 150mA
*High Hfe linearity
*Complement to SC1815

ABSOLUTE MAXIMUM RATINGS (Ta=25°C ,unless otherwise specified)

PARAMETER	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 dissipation	Pc	400	W
Collector current	Ic	-150	mA
Base current	I_B	-50	mA
Junction Temperature	T_j	125	°C
Storage Temperature	T_{STG}	-65 ~ +150	°C

ELECTRICAL CHARACTERISTICS(Ta=25°C,unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV_{CBO}	I_C=-100μA,I_E=0	-50			V
Collector-emitter breakdown voltage	BV_{CEO}	I_C=-10mA,I_B=0	-50			V
Emitter-base breakdown voltage	BV_{EBO}	I_E=-10μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V,I_E=0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-100	nA
DC current gain(note)	h_{FE1} h_{FE2}	V_{CE}=-6V,I_C=-2mA V_{CE}=-6V,I_C=-150mA	70 25		400	
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
Current gain bandwidth product	f_T	V_{CE}=-10V,I_C=-1mA	80			MHz
Output capacitance	Cob	V_{CB}=-10V,I_E=0,f=1MHz		4.0	7.0	pF
Noise Figure	NF	I_C=-0.1mA,V_{CE}=-6V R_G=1kΩ,f=100Hz		0.5	6	dB

CLASSIFICATION OF hFE

RANK	Y	GR	BL
RANGE	120-240	200-400	350-700

TYPICAL CHARACTERISTIC CURVES

Fig.1 Static characteristics

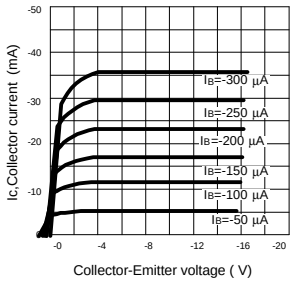


Fig.2 DC current Gain

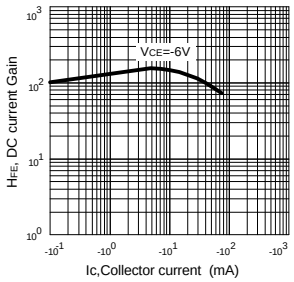


Fig.3 Base-Emitter on Voltage

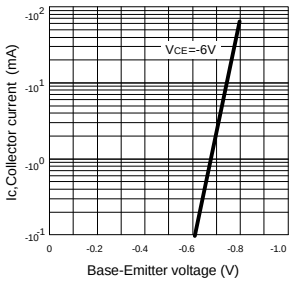


Fig.4 Saturation voltage

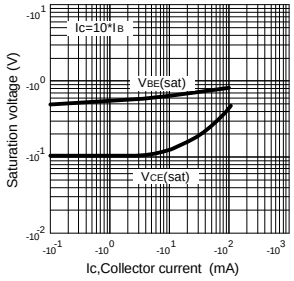


Fig.5 Current gain-bandwidth product

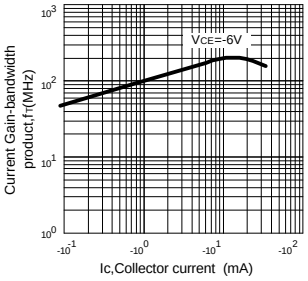


Fig.6 Collector output Capacitance