

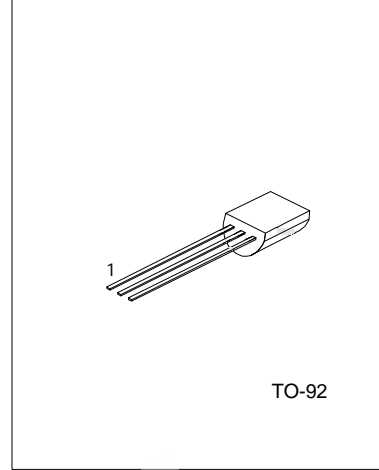
LOW FREQUENCY AMPLIFIER
PNP EPITAXIAL SILICON
TRANSISTOR

DESCRIPTION

The UTC 2SA733 is an low frequency amplifier.

FEATURES

- *Collector-Emitter voltage:
BV_{CE0}=-50V
- *Collector current up to -150mA
- *High h_{FE} linearity
- *Complimentary to 2SC945



1:EMITTER 2:COLLECTOR 3: BASE

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

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CB0}	-60	V
Collector-Emitter Voltage	V _{CE0}	-50	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Dissipation(Ta=25°C)	P _c	250	mW
Collector Current	I _c	-150	mA
Junction Temperature	T _j	125	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CB0}	I _c =-100μA, I _E =0	-60			V
Collector-Emitter Breakdown Voltage	BV _{CE0}	I _c =-10mA, I _B =0	-50			V
Collector Cut-Off Current	I _{cBO}	V _{CB} =-40V, I _E =0			-100	nA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =-3V, I _c =0			-100	nA
DC Current Gain(note)	h _{FE1}	V _{CE} =-6V, I _c =-1mA	90		600	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c =-100mA, I _B =-10mA		-0.1	-0.3	V
Current Gain Bandwidth Product	f _T	V _{CE} =-10V, I _c =-50mA	100	190		MHz
Output Capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		2.0	3.0	pF
Noise Figure	NF	I _c =-0.1mA, V _{CE} =-6V R _G =10kΩ, f=100Hz		4.0	6.0	dB

CLASSIFICATION OF hFE

RANK	R	Q	P	K
RANGE	90-180	135-270	200-400	300-600

TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 Static characteristics

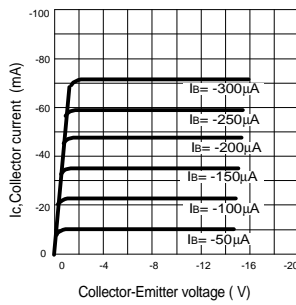


Fig.2 DC current Gain

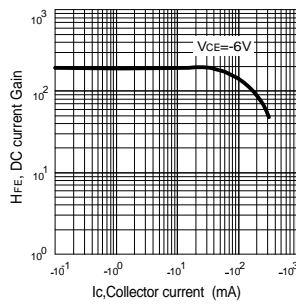


Fig.3 Base-Emitter on Voltage

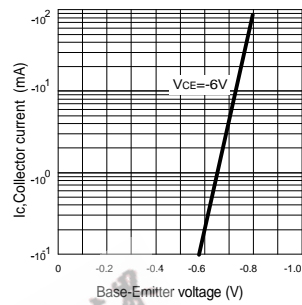


Fig.4 Saturation voltage

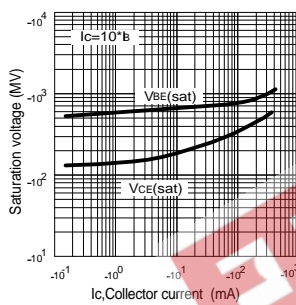


Fig.5 Current gain-bandwidth product f_T

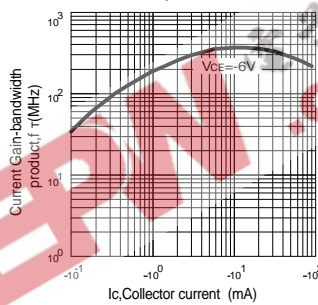


Fig.6 Collector output Capacitance

