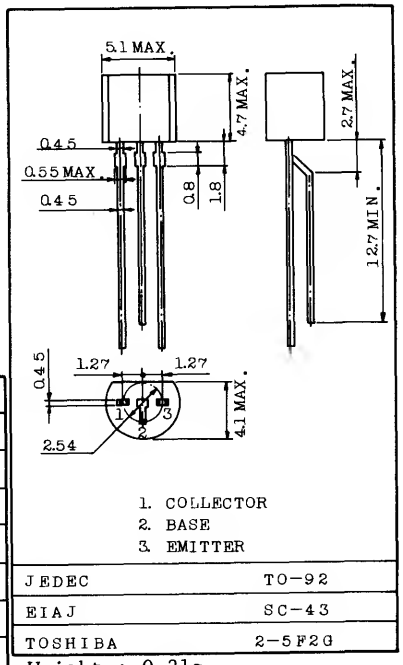
TED1602

SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

AUDIO FREQUENCY GENERAL PURPOSE AMPLIFIER APPLICATIONS.
DRIVER STAGE AMPLIFIER APPLICATIONS.

FEATURES:
. High Voltage and High Current
: V_{CEO}=-50V(Min.), I_C=-150mA(Max.)
. Excellent h_{FE} Linearity
: $h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95$(Typ.)
. Low Noise : NF=1.8dB(Typ.) at f=1kHz
. Complementary to TED1402

Unit in mm



JEDEC	TO-92
EIAJ	SC-43
TOSHIBA	2-5F2G

Weight : 0.21g

MAXIMUM RATINGS (Ta=25°C)

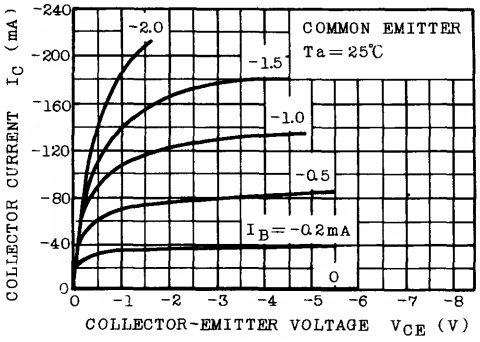
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-150	mA
Base Current	I_B	-50	mA
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-65 ~ 125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

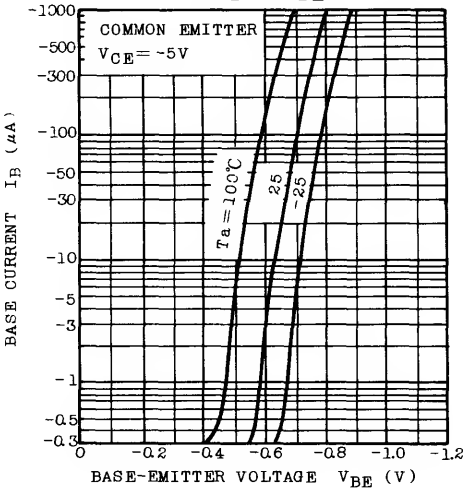
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO(1)}$	V_{CB}=-50V, I_E=0	-	-	-0.1	μA
	$I_{CBO(2)}$	V_{CB}=-50V, I_E=0, Ta=125°C	-	-	-10	
Emitter Cut-off Current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-0.1	μA
DC Current Gain	h_{FE} (Note)	V_{CE}=-5V, I_C=-2mA	70	-	475	
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	I_C=-10mA, I_B=-1mA	-	-0.03	-0.3	V
	$V_{CE(sat)(2)}$	I_C=-100mA, I_B=-5mA	-	-0.25	-	
Base-Emitter Voltage	V_{BE}	V_{CE}=-5V, I_C=-2mA	-0.6	-0.69	-0.75	V
Transition Frequency	f_T	V_{CE}=-10V, I_E=1mA	-	150	-	MHz
Collector Output Capacitance	Cob	V_{CB}=-10V, I_E=0, f=1MHz	-	3.5	-	pF
Noise Figure	NF	V_{CE}=-5V, I_E=0.2mA, R_g=2kΩ, f=1kHz	-	1.8	-	dB

Note : h_{FE} Classification A:70 ~ 105, B:90~140, C:125 ~ 190, D:176 ~ 260, E:223 ~ 475

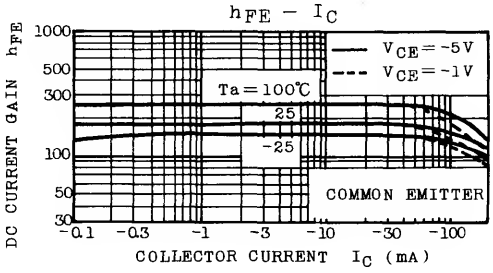
$I_C - V_{CE}$



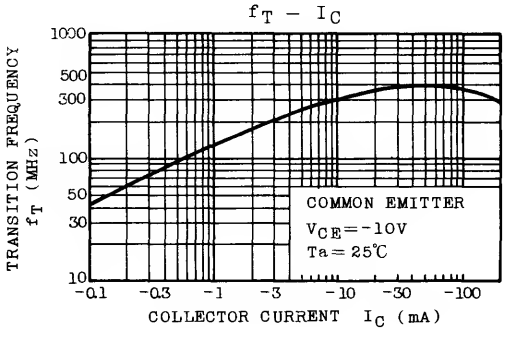
$I_B - V_{BE}$



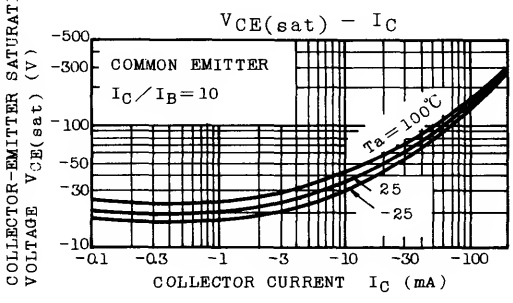
$h_{FE} - I_C$



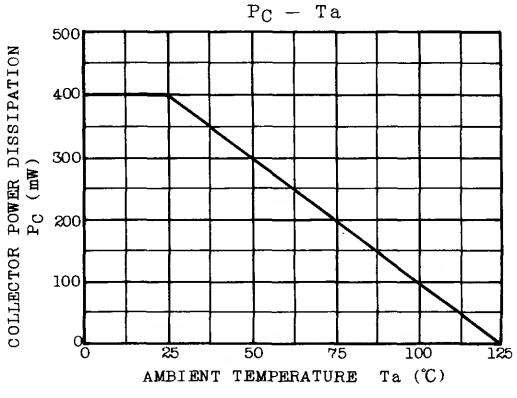
$f_T - I_C$



$V_{CE(sat)} - I_C$



$P_C - Ta$



$V_{BE(sat)} - I_C$