SILICON NPN EPITAXIAL PLANAR TYPE

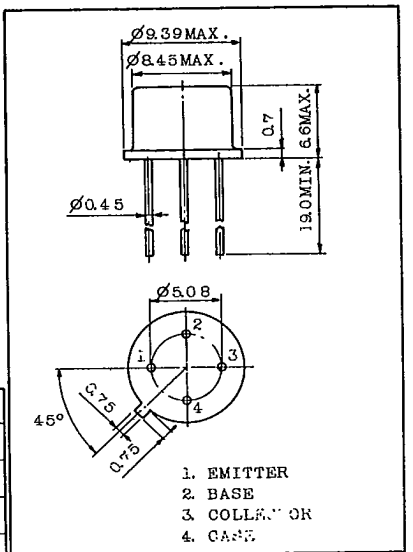
2SC1199

HIGH FREQUENCY WIDE BAND AMPLIFIER APPLICATIONS.
HIGH FREQUENCY LOW NOISE AMPLIFIER APPLICATIONS.

FEATURES:

. Low Noise for High and Low Frequency
  : NF=4.0dB(Max.) f=200MHz
  : NF=11dB (Max.) f=10kHz

Unit in mm



JEDEC	TO-33
EIAJ	TC-5, TB-14B
TOSHIBA	2-8D1A

Weight : 1.2g

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	35	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current	I_C	300	mA
Collector Power Dissipation	P_C	600	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-65 ~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=20V, I_E=0	-	-	0.1	μA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=0.1mA, I_E=0	50	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	35	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=0.1mA, I_C=0	3	-	-	V
DC Current Gain	h_{FE}	V_{CE}=10V, I_C=20mA	40	80	200	
Transition Frequency	f_T	V_{CE}=10V, I_E=-20mA	1000	1400	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=15V, I_E=0, f=1MHz	-	2.2	3.0	pF
Noise Figure	NF(1)	V_{CE}=10V, I_E=-10mA, R_g=50Ω, f=200MHz	-	2.5	4.0	dB
	NF(2)	V_{CE}=15V, I_E=-30mA, R_g=500Ω, f=10kHz	-	6	11	dB

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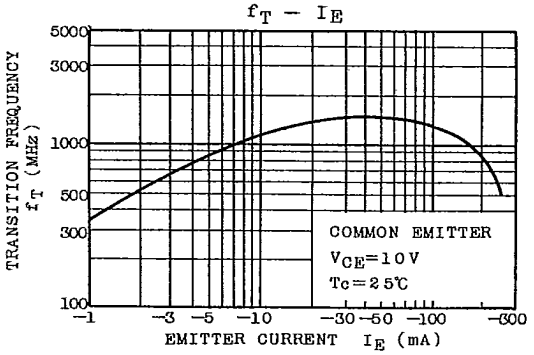
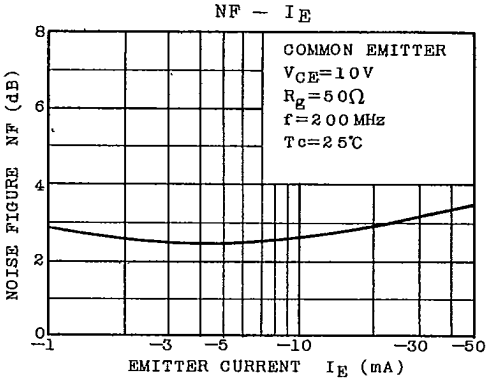
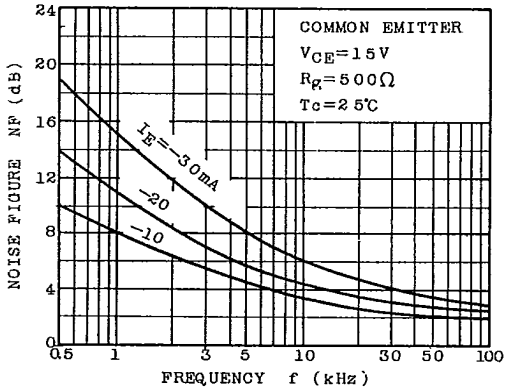
$f_T - I_E$



$NF - I_E$



$NF - f$



$P_C - Ta$