

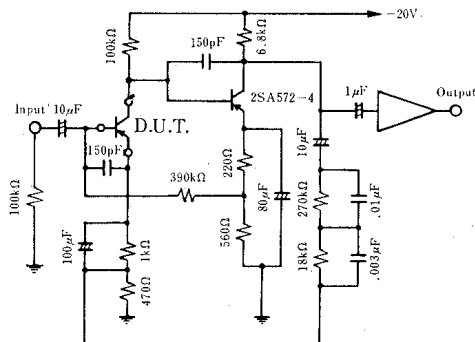
2SA

**Si PNP TRANSISTOR****2SA763**EPOXY MOLDED, LOW NOISE AUDIO AMP.■ **ABSOLUTE MAXIMUM RATINGS** ( $T_a : 25^\circ\text{C}$ )

		763-Y	763-W
COLLECTOR-BASE VOLTAGE	$V_{CBO}$	-30	-60 V
COLLECTOR-EMITTER VOLTAGE	$V_{CEO}$	-25	-50 V
EMITTER-BASE VOLTAGE	$V_{EBO}$	-5	-5 V
COLLECTOR CURRENT	$I_C$	-50	-50 mA
POWER DISSIPATION	$P_C$	200	200 mW
JUNCTION TEMPERATURE	$T_J$	125	125 $^\circ\text{C}$
STORAGE TEMPERATURE	$T_{stg}$	-55~+125	-55~+125 $^\circ\text{C}$

■ **ELECTRICAL CHARACTERISTICS** ( $T_a : 25^\circ\text{C}$ )

PARAMETER	SYM.	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
COLLECTOR CUTOFF CURRENT	$I_{CBO}$	$V_{CB} : -20\text{V}, I_E : 0$			-50	nA
STATIC FWD. CUR. TRANSFER RATIO	$h_{FE}$	$V_{CE} : -6\text{V}, I_C : -1\text{mA}, \text{NOTE 1}$	90		800	
TRANSITION FREQUENCY	$f_T$	$V_{CE} : -6\text{V}, I_E : 1\text{mA}$	80	120		MHz
COLLECTOR OUTPUT CAPACITANCE	$C_{ob}$	$V_{CB} : -6\text{V}, I_E : 0, f : 1\text{MHz}$		3	8	pF
BASE-COLLECTOR TIME CONSTANT COLLECTOR-EMITTER	$C_{e'b'b}$	$V_{CB} : -6\text{V}, I_E : 1\text{mA}, f : 31.9\text{MHz}$		55	100	ps
SATURATION VOLTAGE	$V_{CE(sat)}$	$I_C : -10\text{mA}, I_B : -1\text{mA}$			-0.3	V
BASE-EMITTER SATURATION VOLTAGE	$V_{BE(sat)}$	$I_C : -10\text{mA}, I_B : -1\text{mA}$			-1.0	V
NOISE FIGURE	$NF_1$	$\left. \begin{array}{l} V_{CE} : -6\text{V} \\ I_C : -0.1\text{mA} \\ R_g : 10\text{k}\Omega \end{array} \right\} \begin{array}{l} f_1 : 30\text{Hz} \\ f_2 : 1\text{kHz} \\ f_3 : 10\text{kHz} \end{array}$		2		dB
	$NF_2$		0.7		dB	
	$NF_3$		0.5		dB	
AVERAGE OUTPUT NOISE VOLTAGE	$V_n$	see below				
	L-RANK			8	12	mV
	N-RANK				24	mV

**MEASURING CIRCUIT FOR NOISE VOLTAGE**  
(FREQUENCY CHARACTERISTIC : RIAA)

VOLTAGE GAIN 60dB AT 1kHz

NOTE 1 : ACCORDING TO THE VALUE OF  $h_{FE}$ , THE DEVICE IS CLASSIFIED AS FOLLOWS.

RANK 3 : 90~180

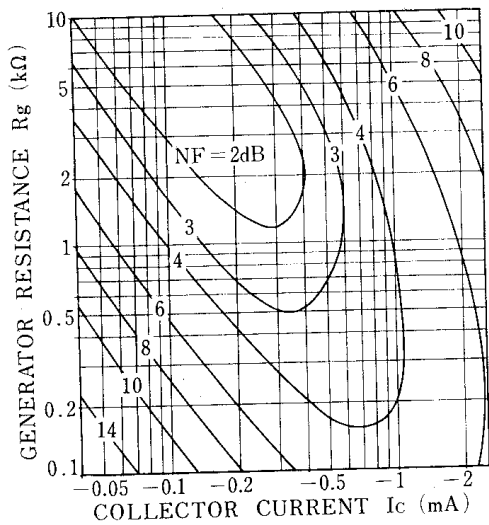
RANK 4 : 150~350

RANK 5 : 250~500

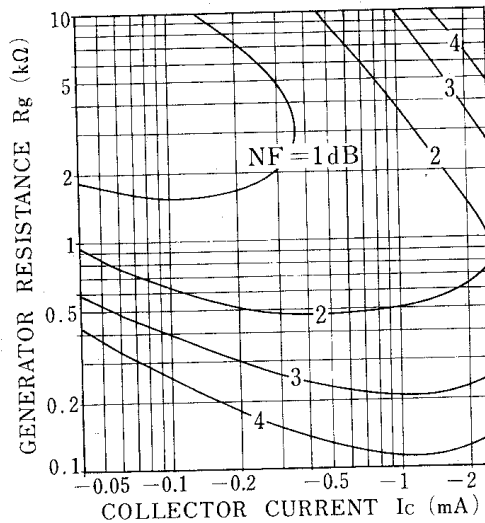
RANK 6 : 400~800

NOTE 2 : FOR COMPLEMENTARY CIRCUIT USING  
**763**, NPN LOW NOISE TRANSISTOR  
TYPE **949** IS AVAILABLE FOR  
REQUEST.

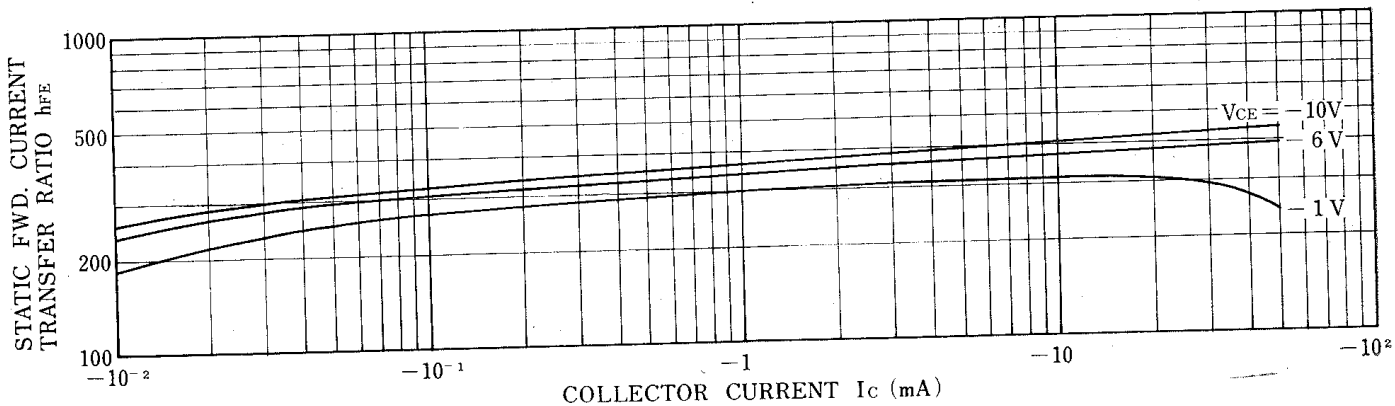
CONTOURS OF CONSTANT NF (1)  
( $T_a : 25^\circ\text{C}$ ,  $V_{CE} : -6\text{V}$ ,  $f : 30\text{Hz}$ )



CONTOURS OF CONSTANT NF (2)  
( $T_a : 25^\circ\text{C}$ ,  $V_{CE} : -6\text{V}$ ,  $f : 1\text{kHz}$ )



STATIC FWD. CURRENT TRANSFER RATIO vs. COLLECTOR CURRENT ( $T_a : 25^\circ\text{C}$ )



**OUTLINE DRAWINGS OF NJRC'S EPOXY MOLDED TRANSISTORS**

(Unit : millimeter)

