

LOW FREQUENCY POWER AMPLIFIER

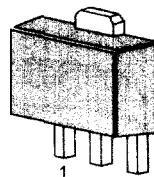
- 3W Output Application
- Collector Dissipation $P_C=1\sim 2W$: Mounted on Ceramic Board
- Complement to KSA1203

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1.5	A
Base Current	I_B	0.3	A
Collector Dissipation	P_C	500	mW
	P_C^*	1,000	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ\text{C}$

*Mounted on Ceramic Board (250mmx0.8mm)

SOT-89



1. Base 2. Collector 3. Emitter

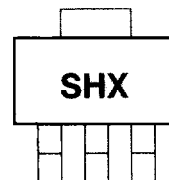
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=10\mu\text{A}, I_B=0$	30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=1\text{mA}, I_C=0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$			100	nA
Emitter Cut-off Current	I_{EBO}	$V_{BE}=5\text{V}, I_C=0$			100	nA
DC Current Gain	h_{FE}	$V_{CE}=2\text{V}, I_C=500\text{mA}$	100		320	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.5\text{A}, I_B=30\text{mA}$			2.0	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=2\text{V}, I_C=500\text{mA}$			1.0	V
Current Gain Bandwidth Product	f_T	$V_{CE}=2\text{V}, I_C=500\text{mA}$		120		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		40		pF

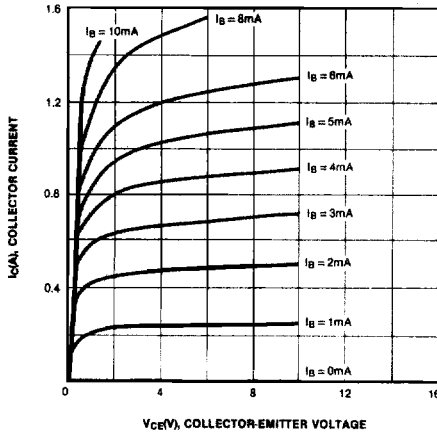
 h_{FE} CLASSIFICATION

Classification	O	Y
h_{FE}	100~200	160~320

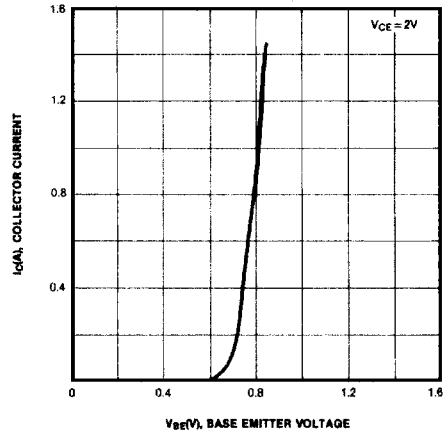
Marking



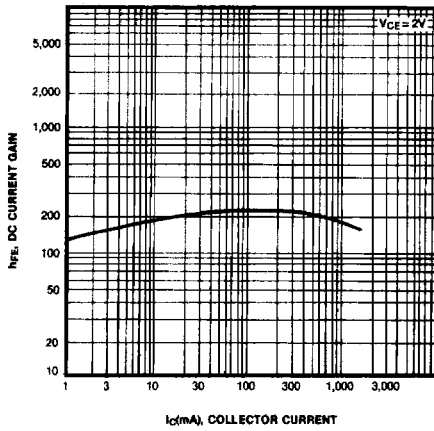
STATIC CHARACTERISTIC



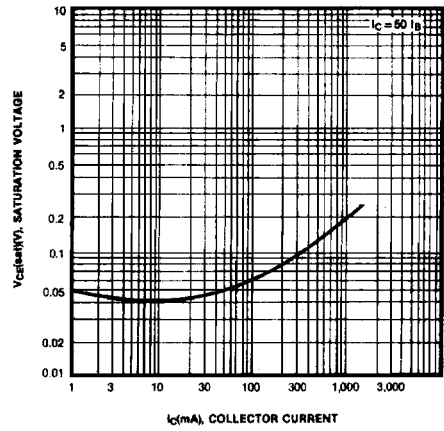
BASE EMITTER ON VOLTAGE



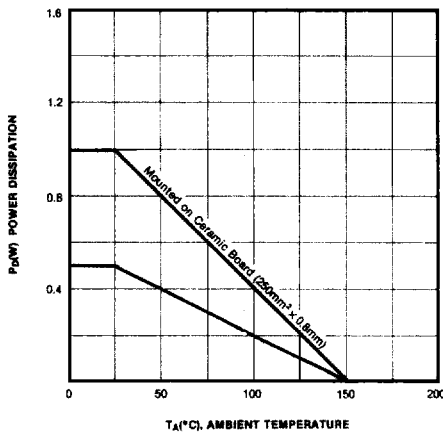
DC CURRENT GAIN



COLLECTOR-EMITTER SATURATION VOLTAGE



POWER DERATING



SAFE OPERATING AREA

