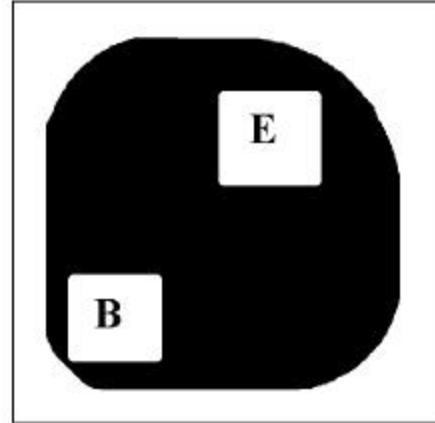


**AUDIO FREQUENCY AMPLIFIER  
HIGH FREQUENCY OSCILLATOR**

- DIE SIZE 350μm×350μm
- METALLIZATION
  - Top Al
  - Back V/Ni/Au
- DIE THICKNESS Typ. 220μm
- PASSIVATION Silicon-Nitride
- BONDING PAD SIZE
  - Emitter 140μm×140μm
  - Base 110μm×110μm



**Collector on Backside**

**h<sub>FE</sub> CLASSIFICATION**

Classification	A	B	C	D
h <sub>FE</sub>	60~150	100~300	200~600	400-1000

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	50			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	45			V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> =-100μA, I <sub>C</sub> =0	5			V
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> =50V, I <sub>E</sub> =0			50	nA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			50	nA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =-1mA	60	280	1000	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA		0.14	0.3	V

**NOTES:** Due to probe testing limitations, only the DC parameters are tested.