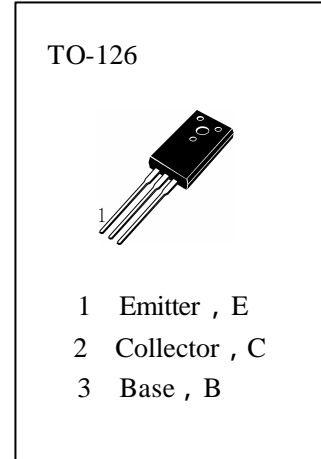


**HS649A****APPLICATIONS**

Low Frequency Power Amplifier.

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg} —Storage Temperature.....	-55~150
T_j —Junction Temperature.....	150
P_C —Collector Dissipation ($T_c=25$)	20W
P_C —Collector Dissipation ($T_A=25$)	1W
V_{CBO} —Collector-Base Voltage.....	-180V
V_{CEO} —Collector-Emitter Voltage.....	-160V
V_{EBO} —Emitter-Base Voltage.....	-5V
I_C —Collector Current.....	-1.5A

**ELECTRICAL CHARACTERISTICS ($T_a=25$)**

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	-180			V	$I_C=-1mA, I_E=0$
BVCEO	Collector-Emitter Breakdown Voltage	-160			V	$I_C=-10mA, I_B=0$
BVEBO	Emitter-Base Breakdown Voltage	-5			V	$I_E=-1mA, I_C=0$
I_{CBO}	Collector Cut-off Current			-10	μA	$V_{CB}=-160V, I_E=0$
$H_{FE}(1)$	DC Current Gain	60		200		$V_{CE}=-5V, I_C=-150mA$
$H_{FE}(2)$	DC Current Gain	30				$V_{CE}=-5V, I_C=-500mA$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			-1	V	$I_C=-500mA, I_B=-50mA$
V_{BE}	Base-Emitter Voltage			-1.5	V	$V_{CE}=-5V, I_C=-150mA$
f_t	Current Gain-Bandwidth Product		140		MHz	$V_{CE}=-5V, I_C=-150mA,$
C_{ob}	Output Capacitance		27		pF	$V_{CB}=-10V, I_E=0, f=1MHz$

 h_{FE} Classification

B

C

60—120

100—200