

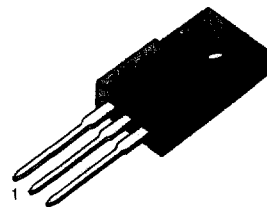
LOW FREQUENCY POWER AMPLIFIER

- Low Collector Emitter Saturation Voltage
- Complement to KSD1406

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	- 60	V
Collector Emitter Voltage	V_{CEO}	- 60	V
Emitter Base Voltage	V_{EBO}	- 7	V
Collector Current	I_C	- 3	A
Base Current	I_B	- 0.5	A
Collector Dissipation ($T_C=25^\circ\text{C}$)	P_C	25	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	- 55 ~ 150	$^\circ\text{C}$

TO-220F



1. Base 2. Collector 3. Emitter

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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = - 50\text{mA}$, $I_B = 0$	- 60			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = - 60\text{V}$, $I_E = 0$			- 100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = - 7\text{V}$, $I_C = 0$			- 100	μA
DC Current Gain	h_{FE1}	$V_{CE} = - 5\text{V}$, $I_C = - 0.5\text{A}$	60		200	
	h_{FE2}	$V_{CE} = - 5\text{V}$, $I_C = - 3\text{A}$	20			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = - 3\text{A}$, $I_B = - 0.3\text{A}$		- 0.5	- 1	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = - 5\text{V}$, $I_C = - 0.5\text{A}$		- 0.7	- 1	V
Current Gain Bandwidth Product	f_T	$V_{CE} = - 5\text{V}$, $I_C = - 0.5\text{A}$		9		MHz
Output Capacitance	C_{OB}	$V_{CB} = - 10\text{V}$, $f = 1\text{MHz}$		150		pF
Turn On Time	t_{ON}	- $I_{B1} = I_{B2} = 0.2\text{A}$		0.4		μs
Storage Time	t_{STG}	$V_{CC} = - 30\text{V}$		1.7		μs
Fall Time	t_F			0.5		μs

 $h_{FE(1)}$ CLASSIFICATION

Classification	O	Y
h_{FE1}	60 ~ 120	100 ~ 200

