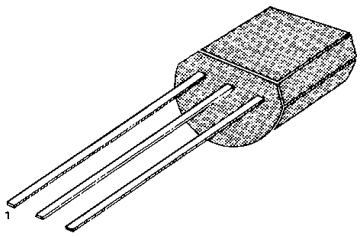
AMPLIFIER TRANSISTOR

- **Collector-Base Voltage: V_{CEO} =120V**
- **Collector Dissipation: P_C (max)=625mW**

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	−130	V
Collector-Emitter Voltage	V_{CEO}	−120	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−600	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C)

Characterstic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=−100μA, I_E=0	−130			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=−1mA, I_B=0	−120			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=−10μA, I_C=0	−5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=−100V, I_E=0			−100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=−3V, I_C=0			−50	nA
*DC Current Gain	h_{FE}	I_C=−1mA, V_{CE}=−5V	30			
		I_C=−10mA, V_{CE}=−5V	40		180	
		I_C=−50mA, V_{CE}=−5V	40			
*Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C=−10mA, I_B=−1mA			−0.2	V
		I_C=−50mA, I_B=−5mA			−0.5	V
*Base-Emitter Saturation Voltage	V_{BE}(sat)	I_C=−10mA, I_B=−1mA			−1	V
		I_C=−50mA, I_B=−5mA			−1	V
Current Gain Banwidth Product	f_T	I_C=−10mA, V_{CE}=−10V f=100MHz	100		400	MHz
Output Capacitance	C_{ob}	V_{CB}=−10V, I_E=0 f=1MHz			6	pF
Noise Figure	NF	I_C=−250μA, V_{CE}=−5V R_S=1KΩ f=10Hz to 15.7KHz			8	dB

* Pulse Test: Pulse Width= 300μs, Duty Cycle=2%