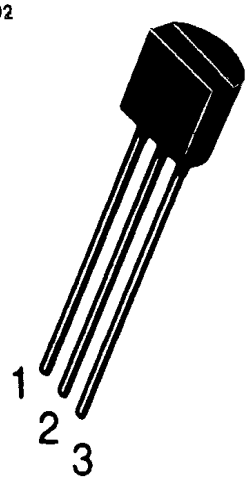
Transistors
2N5551

USHA (INDIA) LTD

AMPLIFIER TRANSISTOR

- **Collector-Emitter Voltage: V_{CEO} =160V**
- **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}	180	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature	Tstg	−55 ~ 150	°C

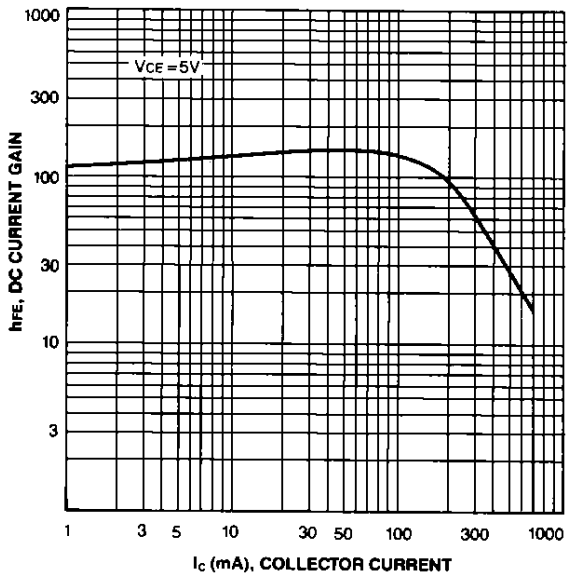
ELECTRICAL CHARACTERISTICS (T_a =25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	180			V
*Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B=0	160			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=10μA, I_C=0	6			V
Collector Cut-off Current	I_{CBO}	V_{CB}=120V, I_E=0			50	nA
Emitter Cut-off Current	I_{EBO}	V_{BE}=4V, I_C=0			50	nA
*DC Current Gain	h_{FE}	I_C=1mA, V_{CE}=5V	80			
		I_C=10mA, V_{CE}=5V	80		250	
		I_C=50mA, V_{CE}=5V	30			
*Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=10mA, I_B=1mA			0.15	V
		I_C=50mA, I_B=5mA			0.2	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 Bandwidth Product	f_T	I_C=10mA, V_{CE}=10V f=100MHz	100		300	MHz
Output Capacitance	Cob	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

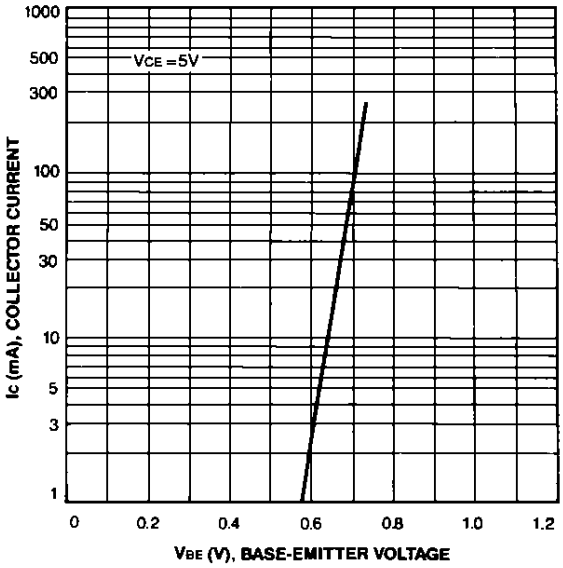
*Pulse Test: Pulse Width=300μS, Duty Cycle=2%

ISO 14001 CERTIFIED
AN ISO 9002 COMPANY

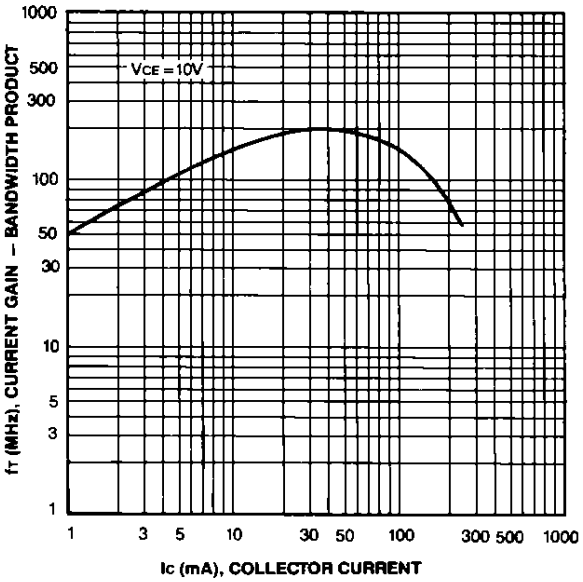
DC CURRENT GAIN



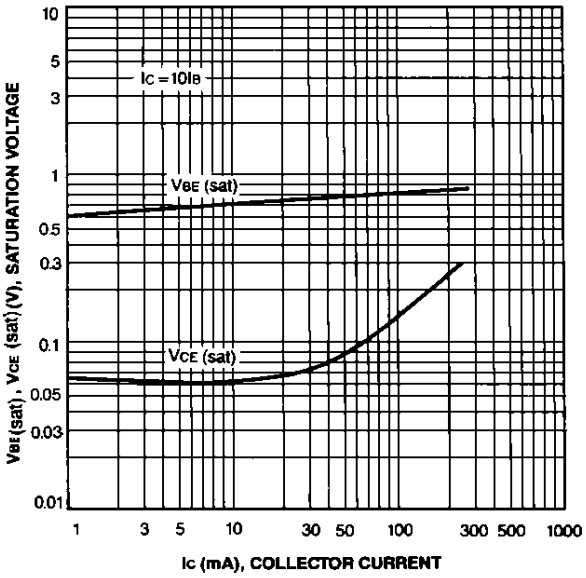
BASE-EMITTER ON VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE COLLECTOR-EMITTER SATURATION VOLTAGE



OUTPUT CAPACITANCE