

# Transistors

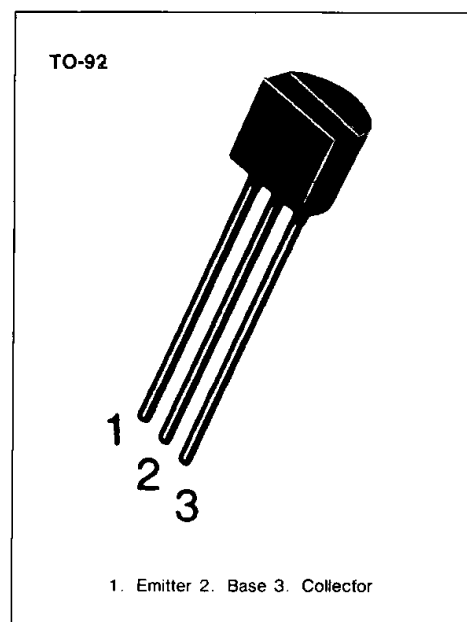
## USP6520

### AMPLIFIER TRANSISTOR

- Collector-Emitter Voltage:  $V_{CE0} = 25V$
- Collector Dissipation:  $P_C (\text{max}) = 625mW$

### ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	40	V
Collector-Emitter Voltage	$V_{CE0}$	25	V
Emitter-Base Voltage	$V_{EB0}$	4	V
Collector Current	$I_C$	100	mA
Collector Dissipation	$P_C$	625	mW
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 ~ 150	$^\circ C$



### ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	$BV_{CE0}$	$I_C = 0.5mA, I_B = 0$	25			V
Emitter-Base Breakdown Voltage	$BV_{EB0}$	$I_E = 10\mu A, I_C = 0$	4			V
Collector Cut-off Current	$I_{CB0}$	$V_{CB} = 30V, I_E = 0$			50	nA
		$V_{CB} = 20V, I_E = 0$			50	nA
DC Current Gain	$h_{FE}$	$I_C = 100\mu A, V_{CE} = 10V$	100			
		$I_C = 2mA, V_{CE} = 10V$	200		400	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50mA, I_B = 5mA$			0.5	V
Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0$ $f = 100KHz$			3.5	pF
Noise Figure	NF	$I_C = 10\mu A, V_{CE} = 5V$ $R_S = 10K\Omega$ $f = 10Hz \text{ to } 10KHz$			3	dB